



Planning Scotland's Seas

2013 POSSIBLE NATURE CONSERVATION MARINE PROTECTED AREAS

The following paper represents the response from the Scottish White Fish Producers Association to the Marine Scotland proposed Marine Protected Areas Consultation.

The Scottish White Fish Producers Association (SWFPA) continues to support the principle of sustainable, evidence based management of Scotland's seas. We would, however, like to express our disappointment, not at the strategic process which has been undertaken in relation to identifying MPAs in Scotland's seas, but at the lack of regard to both legislative and policy frameworks which has resulted in our strong in principle objection to many of the proposed areas.

In line with the SFF response we acknowledge that designation of an MPA by itself does not affect fishing but the draft management measures which are being suggested by SNH and the JNCC may substantially, and in most cases quite unnecessarily, reduce fishing in Scotland's Seas with the consequence of impacting both on individual business viability and indeed have a real socio economic impact on Scotland's important coastal communities.

A fundamental principle is that UK Administrations have determined that their policy for MPA designation will be guided by the rules set down by the Oslo Paris (OSPAR) Convention for the protection of the marine environment of the North East Atlantic, of which the United Kingdom is a Contracting Party. Along with The SFF we agree with this approach and are therefore disappointed that the Marine Scotland consultation paper ignores it.

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2013 POSSIBLE NATURE CONSERVATION MARINE PROTECTED AREAS

SCOTTISH WHITE FISH PRODUCERS ASSOCIATION RESPONSE TO THE 2013 MARINE PROTECTED AREAS CONSULTATION

We would firstly appeal to Government to reconnect with both its legislation and policy. We find ourselves in a policy position which is very distant from the position in which the UK should be to deliver its OSPAR obligations.

This response will examine, first, the matter of individual MPA designation before passing on to network design. It will, however, draw on some specific examples and highlight many common issues of concern across the network. We will echo many of the concerns within the SFF response but will attempt to not replicate the detail.

REFLECTION ON THE CONSULTATION

SWFPA acknowledge the level of stakeholder engagement undertaken throughout the process, however, we note that it did not extend to high-level questions such as network design, OSPAR obligations and replication. It is in relation to these latter matters, in the main, that SWFPA is now taking objection.

MPA DESIGNATION, NETWORK DESIGN AND REPLICATION

Examination of the OSPAR, UK and Scottish legislation and policy in relation to, and requirements for these matters is laid out in Annex I as per the SFF response. The essentials arising from that examination are to be found in the next section.

DISCUSSION

We wish to follow up on the SFF point that enough has been presented to form the foundation for a serious discussion on whether the Consultation approaches a correct interpretation of the laws and policy governing designation and network design.

It will have been noted that there are a number of definitions of the extent of the ecologically coherent network. Putting aside the definition of such a network, this discussion will concentrate on its extent. The following in legislation and policy are noted below:

Scottish territorial waters

Scottish waters (as defined following administrative devolution).

UK waters. (UK Marine Area)

OSPAR biogeographic regions

The Joint Administrations now favour the latter but legislation (s. 79 of the Act) which mirrors the equivalent provision in the Marine & Coastal Access Act 2009, ("the UK Act"), requires a network at the extent of the UK Marine Area. To square the circle the UK Joint Administrations Statement of 2012 (JAS) proposes that the UK Network is a contribution to the OSPAR Ecologically Coherent Network (ECN). While it is difficult to understand what the UK Network will comprise, logic dictates that there will be individual MPAs contributing to the relevant OSPAR Regions which will fill gaps in the ECN requirements for those Regions.

There is neither right nor duty in the Act for the establishment of a network at the level of Scottish waters which indeed would have been, for many species and habitats very difficult, if not impossible, as application of the Act extends only to the width of the territorial sea and no such right was devolved administratively, for the wider seas.

ROLE OF MPAs

It is noted that the role of MPAs is defined as being important at the scale of Scotland's Seas for the purpose of conserving (and recovering) threatened and/or declining habitats and sessile benthic species at global, north-east Atlantic or UK scales and of conserving (and recovering) significant areas for geographically restricted habitats or species at global, north-east Atlantic or UK scales. That immediately betrays a concern, which is not addressed in the Consultation that despite the scale of Scotland's Seas, that scale is still too small to confer certain conservation and recovery, following the creation of a network.

There is nothing in the legislation which permits the designation of MPAs to enable the protection of significant aggregations or communities of important marine species in Scottish waters nor, as far as can be seen, areas contributing to the maintenance of ecosystem functioning.

SPECIFICATION OF MPAs FOR NETWORK CONSTRUCTION

It will be remembered that the only network which is relevant to the implementation of the UK legislation is a UK network. The only MPAs the Scottish Ministers can designate are those which will form part of that network. Neither representation nor replication can be assessed until the gaps in the Regions II III and V network construction have been identified.

It is clear, that the cart (designation of sites and proposed replicates for those sites) has been put before the horse (agreement within the UK of the elements required for completion of the regional networks themselves contributing to the ECN (based on ECN representation and replication rules).

REPLICATION

The result of the approach taken in the Consultation Document to replication means that before identification of the gaps in Regions II and III, there is already, not just replication, but in many cases, extensive replication proposed. This has been brought to the attention of Marine Scotland in relation to a number of habitats and species including burrowed mud habitats and sand and gravel both of which are overly represented in the consultation. I would ask that Government

note the concerns which have been raised in relation to a number of sites both inshore and offshore with regard to these habitats. Furthermore, there is the additional issue of features being added to sites for which there is no justification.

This outcome does not conform to any of the policies referred to. The Marine Scotland policy, contained in paragraph 4.14 of the Guidelines, is clear that replication will have been achieved if there is more than one example across the Scottish network. However we have already established that there cannot be a Scottish network. The requirement for replication is, following both the Scottish and UK Acts and OSPAR Guidelines, for there to be more than one replicate site in any OSPAR biogeographic Region.

SNCBs have concluded that the requirement is to have a feature with more than one replicate site in each OSPAR Region where Scotland's Seas form part of that Region. In other words, there will be a feature, if available, provided from Scottish Waters, defined below, for each of OSPAR regions II & III together with replicates, if possible, similarly provided for each of those features. While SNCBs are defining features in different ways it would appear that 'feature', in this context, means features whether or not on the OSPAR list of threatened and/or declining habitats and species or in addition, for habitats, EUNIS level 3 features.

Sometimes even this definition proves too narrow for SNCBs. SNH suggests in justification for 4 replicates for flame shell beds within Scottish waters and also within OSPAR Region III, the following. "Flame shell beds are included within more than one search location / potential area for an MPA but these (beds) are all within OSPAR Region III i.e. there is no replication between regions. It is not possible to achieve replication between regions because flame shell beds are only recorded in OSPAR Region III. Therefore this part of the guideline is considered to be met."

Finally, it is true that before any replication can be proposed the representative feature must be identified. No attempt has been made to identify the representative feature in any category. This factor, on its own negates the purpose of the Consultation which is to produce a result which complies with OSPAR Guidance.

The requirements for representation and replication within the UK Network cannot be established until an assessment of gaps in the networks as they know exist, is completed.

The identification of replicates cannot start until the representative, which is to be replicated, has been identified.

DISCUSSION

It is stated that scientific decisions will be based on "best available information". SNCBs reproduce that as "best available evidence".

Defra recognised that the term "best available evidence", is not a standard at all and, as a consequence, and for other reasons, restricted its proposals from 127 MCZs to 31.

Representations on the same grounds have been made to Marine Scotland but all to no effect. We have attempted to reach agreement on the basis that the evidence would have to be in favour of designation on the balance of probabilities, but this was rejected, presumably on no other basis than much of the evidence failed that standard.

We do not accept this rejection because a designation without, or on the basis of insubstantial, evidence is against natural justice and scientific probity.

Further we do not accept that the peer review of SNCB's evidence, carried out in-house, is anything like sufficient or acceptable in the scientific world.

The outcome of any independent expert review has not been brought to the attention of industry and, until it is, we will proceed on the assumption that any review of evidence, carried out in-house, is a conflict of interest.

DATA CONFIDENCE ANALYSIS

We concur with SFF on their analysis of the data confidence analysis of each proposed MPA. Our concerns are laid out in Annex II of this response.

It also has to be emphasised that we believe the Data Confidence Analyses are not independent of those who are recommending the designations.

OBSERVATIONS

It is our belief that only those species and habitats which fall within the definitions contained in the Acts may be designated as reason for an MPA designation.

The SFF and SWFPA in its response to the consultation on Primary Marine Features have indicated which species habitats and features should not appear on that list. However it will expand on some of them here.

Black Guillemot. It is understood that this species appears because it is protected by neither the Habitats Directive nor the Birds Directive. A Black Guillemot is an avian species and falls outside the gambit of the Act.

It is noted that Defra has strongly hinted that designation of an MCZ of any form of bird would require a change to the UK Act.

Furthermore a Front is ephemeral. As with Black Guillemot, it does not fall within the definition of an object which justifies the designation of an MPA as set out in 68 (1) of the Act.

Sandeels. The species of sandeels appearing in Scottish waters do not appear on the OSPAR threatened/declining list. They appear in Table 12 of the Guidelines on the list of commercial fish, any of which could be used to underpin, and therefore not the primary purpose, of the designation of an MPA. Table 12 carries a specific explanation of why a sandeels complex might be designated.

Where there is a fishery concern, sandeels are protected by fishery measures. Under the "three pillar" approach further badging is not appropriate. In other areas, while it might be considered desirable to designate an MPA primarily for sandeel protection, any action to do so would go beyond both the law and the guidelines.

Sea-Pen and burrowing megafaunal communities. This range does appear in the list of threatened and/or declining habitats and species that OSPAR recognises as requiring protection. However it is very clear from document OSPAR 10/23/1 – E, Annex 33, that the protection by an MPA is not appropriate. It is not competent (OSPAR Convention Annex V, Article 4.1) to a habitat which requires fisheries measures to attain conservation objectives. OSPAR, therefore, calls upon Contracting Parties to consider fisheries measures to protect the relevant communities.

SWFPA PERSPECTIVE

The Table on the following page sets out the reaction of SFF Associations, of which SWFPA is one, to MPA proposals. That reaction is a view of the 'worst case' management proposals for the relevant MPA.

SWFPA has as you know, fully engaged in the public consultation process and subsequent meetings. This is not the place to make detailed comments on either alternatives or indeed boundary changes given we have a fundamental objection to the process but we do reserve the right to have further discussions with you should you proceed to designate any sites.

We have, as you know, great concern with regard the level of social impact that any designation may have. Having reviewed recent academic literature available much of the focus is around the problems of continuity and where the fleet will be in a decade or so with the lack of younger people who wish to enter the fishing industry. This is a very real issue and as you know we are in the reality of a contracting industry with fewer vessels and decreasing fishing opportunities. It is essential that the impact of MPAs has to be seen in context.

I think it is useful to also offer some comments which have come directly from our skippers. I believe they have made a series of very pertinent points which I think are worth noting.

Many skippers have noted, the habitats and species are still there and have survived heavier fishing pressure than now. Looking at the precautionary principle surely that would imply we should continue doing what we are now unless the evidence points elsewhere? It is also true that in many cases you are unable to determine the status of many of the species and habitats and through this project are essentially conducting a research process to determine cause and effect at the expense of the fishing industry.






Research has shown that fish populations are generally moving north at a rate of 10 km per year. It is believed that static MPAs will do little of use if benthic fauna behave in a similar manner.

We have raised the question regarding the use of existing areas such as wind farms and oilrig installations. The answer I have been given is bland at best and in fact I

believe that it is being discounted not because its unfeasible but because no work has been done to explore the very sensible and pragmatic possibilities.

It also appears that Nephrop grounds seem to thrive on greater fishing pressure - more fishing within reason = more Nephrops. The dynamism, of the grounds is probably not restricted to Nephrops - other species may have equally fluctuating populations - in which case treating them like they will return to some sort of stable state if left alone is completely naive.

Displacement of fishing effort could mean that ridiculous fishing pressure occurs around MPAs at certain times (when boats have no choice because of RTCs and limited distribution of prawns coming on). Thus eventually damaging the grounds. Furthermore given that displacement has not been considered as yet I find it staggering that you feel that you can proceed to designation without any of this information.

SCOTTISH PROPOSED MPAs-ASSOCIATION REACTION								
								
NO VIEW	ACCEPT	POSSIBLY	ACCEPT/REJECT	REJECT	NO RETURN			
	ANGLO-SCOTTISH	CLYDE	MALLAIG	ORKNEY	SCALLOP	SCOTTISH H WHITE FISH	SCOTTISH PELAGIC	SHETLAND
CENTRAL FLADEN CFL								
CLYDE SEA SILL CSS		Orange			Red	Orange		
EAST CAITHNESS CLIFFS ECC						Green		
EAST OF GANNET AND MONTROSE FIELDS EGM						Orange		
FAROE-SHETLAND SPONGE BELT FSS						Orange		
FETLAR TO HAROLDSWICK FTH								Green
FIRTH OF FORTH BANKS COMPLEX FOF	Red					Red		
GEIKE SLIDE AND HEBRIDEAN SLOPE GSH						Red		
HATTON-ROCKALL BASIN HRB						Green		
LOCH CRERAN LCR		Orange	Orange		Green	Orange		
LOCH SUNART LSU		Green	Black			Orange		
LOCH SUNART TO THE SOUND OF JURA SJU		Orange				Red		
LOCH SWEEN LSW		Orange	Black		Green	Orange		
LOCHS DUICH, LONG AND ALSH DLA			Red			Orange		
MONACH ISLES MOI			Black		Green	Green		
MOUSA TO BODDAM MTB							Orange	Green
NORTH-EAST FAROE SHETLAND CHANNEL NEF						Orange		
NORTH-WEST ORKNEY NWO				Orange		Green		
NORTH-WEST SEA LOCHS AND SUMMER ISLES NWS		Red	Red		Red	Red		
NORWEGIAN BOUNDARY SEDIMENT PLAIN NSP						Orange		
NOSS HEAD NOH					Red	Red		
PAPA WESTRAY PWY								
ROSEMARY BANK SEAMOUNT RBS						Orange		
SMALL ISLES SMI		Orange			Red	Red		
SOUTH ARRAN ARR		Red	Black		Red	Red		
SOUTH-EAST FLADEN SEF						Red		
SOUTH-WEST SULA SGEIR AND HEBRIDEAN SLOPE SSH						Red		
THE BARRA FAN AND HEBRIDES TERRACE SEAMOUNT BHT						Red		
TURBOT BANK TBB						Red	Orange	
UPPER LOCH FYNE AND LOCH GOIL LFG		Red				Red		
WEST SHETLAND SHELF (FORMERLY WINDSOCK) WSS						Red		
WESTERN FLADEN WFL						Red		
WYRE AND ROUSAY SOUNDS WYR								

PROSPECTIVE MPAS

What follows are examples of more detailed analysis of two pMPAs. We could provide this for every other MPA for which we have concerns. These are provided to demonstrate our concerns.

You will know from our discussions that we have grave concerns regarding the West Coast off shore sites, particularly with regard to the evidence for these sites which I would strongly recommend is reviewed, this includes the windsock. It is hard to understand the rationale for an MPA in this area when its long term future is unclear. We have, through, our series of meetings attempted to reinforce the importance of these West Coast sites to the fishing industry. For example the Faroe/Shetland Sponge Belt has become of increasing importance to our fleet for species such as redfish, black halibut, monks, ling etc. With regard to the South West Sula, Geikie Slide, and the Barra Fan again there are many areas within the proposed areas which are of importance to the Scottish fleet but also the Spanish and French. When the Government are very aware of the pressures of those operating in the West Coast and the economic importance of fishing to communities such as Kinlochbervie and Lochinver any designation which has a socio economic impact is high risk at best.

Many of the pMPAs affect all of our members to a greater or lesser extent. Many of the inshore sites have the potential to impact the Scallop sector in terms of management measures being proposed and to a lesser extent some of the nephrop sector. This is of huge concern in terms of the economic impact this may have on the fleet and communities such as Mallaig and Oban. I would question the evidence being used in many of these sites and indeed the economic impact analysis which does not fully reflect the potential situation. These include such sites as NW Sea Lochs, Monach Isles, Loch Sunart, and the Small Isles to name a range.

We are not at this stage discussing the principle of sites where you have provided an alternate. As you will know from our various meetings each of these has an implication and require much more detailed discussion.

CENTRAL FLADEN

THE JNCC REASON FOR DESIGNATION

The Central Fladen possible MPA is recommended for the protection of the seapens and burrowing megafauna (Central Fladen) and the tall sea-pen (Central Fladen 'Core') components of burrowed-mud habitat, and a sub-glacial tunnel-valley geodiversity representative of the Fladen Deeps Key Geodiversity Area (Brooks et al., 2012). The original possible MPA boundary was defined by data points from 2008-2010 which met or exceeded the average seapen density for burrowed-mud habitat across the wider Fladen grounds. The area of records of the tall seapen to in the southern part of the possible MPA has been identified as the Central Fladen 'Core'. Survey data collected during 2013 confirmed the presence of the seapens and burrowing megafauna (SS.SMu.CFiMu.SpnMeg) habitat across the possible MPA boundary and identified further tall sea pen records in the Central Fladen 'Core'.

The OSPAR definition of this habitat is “Sea-pen and burrowing megafauna communities” means plains of fine mud, extending over an area of at least 25m² and at water depths ranging from 15-200m or more, which are heavily bioturbated by burrowing megafauna, with burrows and mounds typically forming a prominent feature of the sediment surface, and which may include conspicuous populations of sea-pens, typically *Virgularia mirabilis* and *Pennatula phosphorea*.

The difference between the minimum patch size in the area intended to be protected is highlighted below. Neither of the two species of sea pen specifically referred to is the tall sea pen.

Measures: We are certain that objection will be taken not just by Scottish fishermen but also by OSPAR Contracting Parties to a proposal that MPA protection is extended to a feature the protection of which requires a CFP agreed fisheries pressure.

Extent: the habitat extent proposed for the MPA is 702 km². The minimum patch size proposed by OSPAR protection extends to 25m² it is submitted by SFF that as the area proposed for protection far exceeds required by OSPAR, it should be substantially reduced.

Representation: while OSPAR directs this feature is worthy of protection, it being included in the list of threatened and/or declining habitats, the feature is, likely to be represented elsewhere in Region II. No assistance is given in the consultation as to whether or not this is true and therefore no further steps for either MPA designation or fisheries protection should be taken until a position concerning the feature protection is clarified. If, as we suspect, MPA protection is not appropriate; the question of replication does not arise.

It is noted that the glacial tunnel feature does not require protection.

ECONOMICS

The Fladen grounds have both historic and current importance to Scotland’s Nephrop Fleet.

We have sought to defend our member’s legitimate rights by challenging the validity of the data used within the Socio-Economic Assessment accompanying the MPA consultation. It should be noted that SWFPA resolutely dispute the (average) landings values presented in the original BRIA documentation.

In short, the figures you provided regarding the (average) landings values as presented in the original documentation (BRIA) for the consultation have been challenged by full time, professional fishermen as being inaccurate. The example presented was based on one fishermen’s information which implied that his income from October / November in 2012 in the SE Fladen area was approximately £194,000 (5 trips). The same skipper confirmed that approximately 40 vessels were operating in the same area at that time with the same catch rates. Our estimation of this ‘micro’ fleets income over the period concerned is at great odds with the suggested income.

As indicated, we suggest your analysis to be flawed and, due to the discrepancy in our separate findings, ask that the actual outcomes be checked.

Your responses to date do not indicate whether or not these figures have been checked.

It maintains our assertion that the consultation does not represent the true economic value of the proposed Fladen MPA.

SOUTH ARRAN

THE SNH REASON FOR DESIGNATION

Proposed Protected Features

Biodiversity: burrowed mud; herring spawning grounds; kelp and seaweed communities on sub littoral sediments; maerl beds; maerl or coarse shell gravel with burrowing sea cucumbers; ocean quahog; seagrass beds; shallow tide-swept coarse sands with burrowing bivalves.

The aim is to recover the maerl beds and to conserve the other features in order to make a long lasting contribution to the MPA network.

While this area was contained within a larger Area of Search, it did not graduate to a pMPA. Perhaps that has much to do with the fact that Government and other surveys found little therein which would be valued for conservation.

The MPA proposal did not, originally, come from Government but originated as a 3rd party proposal promoted by an environmental pressure group based on Arran called COAST.

It made a proposal with the outer boundary drawn on the same line as the old 3 mile limit abolished in 1984. This was no coincidence. COAST suggests that the decline in fish stocks in the Clyde results directly from that abolition. The inconvenience of providing supporting evidence is bypassed. It is also clear that assumptions have been made which are entirely erroneous. For example at the Marine Scotland event in Brodick on 30 October 2013, it was specifically stated and widely supported that the introduction of scallop dredging following the abolition of the 3 mile limit was responsible, either entirely, or in the main for the destruction of the seabed. In fact scalloping, up to the shoreline, has always been legal in the Firth of Clyde, in those parts where fishing is allowed.

Remaining with that event, the indelible impression gained was that marine protection was being used as a vehicle to obtain the elimination of fishing in the whole of the MPA. A suggestion by Marine Scotland that parts only of the area might require protection was vociferously rejected.

Proposals not accepted for “Protected Features”

Almost as pertinent as the features accepted for protection are the features forming part of the 3rd party proposal which were rejected, as well as the reasons for rejection. The features rejected are Horse Mussel Beds, Northern sea fan and

sponge communities, Native Oysters and ocean quahog aggregations. Rejection was on the basis of no evidence of the species either at all, or in the state in which the species could be protected. One has to wonder why proposals have been made which were not supported by evidence. The fact is that those proposals were made and it follows that the effect on the remainder of the proposal is destructive.

Evidence

The foregoing credibility concern raises a natural reluctance to accept evidence which has allegedly been attested by SNH. An example is the evidence of maerl having been located at the Iron Ledges. Previous expeditions to this area have found nothing and, particularly, no maerl. SNH accepts the evidence of a set of photographs, the location of where they were taken being confirmed by a set of GPS readings. While this might very well be the case the standard applied is woefully short of acceptable. The photographs were provided, we understand by Mr Howard Wood who is the chairman of COAST the body which made the 3rd party proposal. There is no evidence that any attempt at corroboration has been made.

There has not been time to examine the evidence for other features but the foregoing should cast more than enough doubt for the proposal to be withdrawn from the process for further examination.

Status of the Proposal

The reduced proposal, now adopted by Government, is designed to give protection to the following: –

- o Kelp and seaweed communities on sub littoral sediment (SS.SMp.KSwSS)
- o Tide-swept algal communities (IR.HIR.KSed.XKHal)
- o Seagrass beds (SS.SMp.SSgr.Zmar)
- o Maerl beds (SS.SMp.Mrl)
- o Maerl or coarse shell gravel with burrowing sea cucumbers (SS.SCS.CCS.Nmix)

There is also a claimed benefit from the imposition of an MPA with appropriate restriction to the herring spawning ground at Brown Head.

Burrowed mud is not mentioned and nor should it be. It is already over replicated in Scottish waters and probably additionally in UK waters, if we only knew.

Discussion

Dealing with the last first, it is understood that the spawning ground is protected by current legislation. However a search, which confirms that the Ballantrae Banks continue to have seasonal protection, suggests that the Brown Head closure may have lapsed. Further information on this as requested from Marine Scotland including the reason why the closure was allowed to lapse and what benefit may be expected from its reintroduction. If there is spawning spring stock herring to be protected, then it should be.

Kelp and seaweed communities on sub littoral sediment (SS.SMp.KSwSS)

These do not appear on the OSPAR list of threatened and/or declining species and thus should be removed as an underpinning reason for MPA designation.

Tide-swept algal communities (IR.HIR.KSed.XKHal)

These do not appear on the OSPAR list of threatened and/or declining species and thus should be removed as an underpinning reason for MPA designation.

Seagrass beds (SS.SMp.SSgr.Zmar)

This feature, according to Marine Scotland, is protected by another measure and therefore should not be used to underpin MPA selection.

Maerl beds (SS.SMp.Mrl)

This feature appears, specifically for Region 3 in the OSPAR List. However maerl is already protected in the Lamlash Bay NTZ which lies within the boundaries of the proposed MPA. This fact excludes the Iron Ledges possible maerl site from being used to underpin MPA selection.

OSPAR Principle 11 states “Replication of habitats, species and ecological processes in separate OSPAR MPAs in each biogeographic area is desirable where possible.

Replication is already proposed within the Scottish Waters in other MPAs lying within Region III.

Concerns in respect of the evidence which underpins the existence and location of the species have already been expressed.

Maerl or coarse shell gravel with burrowing sea cucumbers (SS.SCS.CCS.Nmix)

These do not appear on the OSPAR list of threatened and/or declining species and thus should be removed as an underpinning reason for MPA designation.

SUBMISSION

REPRESENTATION

Before anything further is done, and particularly prior to designation, a thorough examination must be made of sites already designated as MPAs within those OSPAR Regions into which a UK network will stretch. The purpose of that examination would be to identify features, capable of designation under UK legislation, which are already designated. If any are identified then they are, or one of them is, the representative of that feature.

REPLICATION

It must be recognised, at this stage, that replication is not required in all cases. Those features for which it is proposed that replication is required must be identified and consulted upon.

The examination proposed in 10.1.1 should also identify where features are already replicated in MPAs in the various OSPAR Regions.

If there is a sufficiency, following OSPAR standards, of replication, no further replication is required as part of the UK contribution. No designation must occur until this exercise has been undertaken, consulted upon and concluded.

NETWORK

It must be conceded that there is no duty to create a Scottish network or, if that concession, can be justifiably ignored that the network extends only to Scottish territorial waters.

We agree with the thrust of the JAS but notes that its repetition of OSPAR requirements goes further than those requirements themselves. It must be modified accordingly.

In particular we are content that the proposed UK Network is created for administrative purposes only. One of those purposes is to ensure that the UK contribution to the OSPAR ECN is an addition to that which has already been designated by the UK and others. That addition must not exceed the obligations which the UK has towards the OSPAR ECN.

REPRESENTATION

Given the agreement amongst UK Administrations that designation is for the purpose of contributing towards the OSPAR ECN only, there cannot be any designation which is not for that purpose. We will submit as part of Annex II its list of MPAs, proposed for Scottish Waters which it considers to be ultra vires.

Those species and habitats which fall outside those which may be protected by MPA designation have already been noted. They should be removed from the list.

Within UK proposals the representative site for each feature must be identified. We consider that that there must be a ranking of replicates so that excess designation can be pared down, in preparation for the application of the OSPAR replication test.

Replication within the same site (e.g. maerl in South Arran) must be removed to meet OSPAR policy.

No habitat and/or species (e.g. burrowed mud and tall sea pens) must be designated for MPA protection which could not be designated under OSPAR Convention annex V.

EVIDENCE

Corroboration of evidence is essential. In particular, evidence cannot be accepted from a 3rd party without the original source being verified. This is particularly true where evidence is provided by a party who has a declared interest in achieving designation. Excluded from the above should of course be conclusions which had been properly and independently peer-reviewed by a recognised academic individual or body.

A data confidence assessment cannot be a substitute for corroborated evidence. It is after all only an opinion. Opinions must not be allowed to result in designations.

Given the serious concerns which the SFF has in relation to the standard of evidence and the process by which that evidence was reviewed the Scottish Ministers are requested to put in hand the process permitted by s.78 (2) (regulations to permit independent scrutiny of designation proposals) so that independent scrutiny, following representations, can be made prior to designation.

MANAGEMENT

The management proposals made are all interesting and in some cases entertaining. However they are not yet at a stage where acceptance of a proposal can be given or withheld. Even strong hints that the management will not affect, to any material extent, fishing in a proposed site, cannot be relied upon.

It is proposed that before designation takes place management measures are settled upon, leaving an opportunity to oppose designation, if it is considered that the proposals go too far. It is recognised that proposals which affect fishing activities will be subject to a 12 week consultation period prior to an SSI being made under the Inshore Fishing (Scotland) Act 1984.

GENERAL

As stated in the preamble, along with SFF, SWFPA supports the MPA process and the intention to create an Ecologically Coherent Network, on OSPAR guidelines, in the North East Atlantic.

In order to turn that support into practical assistance, fishermen must be persuaded that the process being followed is fair and reasonable and that sacrifices which they will be asked to make are at the minimum needed to ensure compliance with the Law.

We have come to a view that this test is far from being met in relation to compliance with the Act, the UK Act and the OSPAR Convention.

SWFPA has made every attempt to ensure that its response, while coming to a conclusion which cannot support the Consultation recommendations, is based, not

just in the subjective interests of its members but on the objective basis of deduction and logic. It is not intended that that outcome should have favoured any party. The Scottish Government must not, therefore, detect any intention to derail the MPA process nor indeed to undermine the principle.

ANNEX I

MPA DESIGNATION

THE LAW

I note the comments made by the SFF in relation to matter of the Law and the implications for MPA designations. I will not reiterate these here but add my full support to the points made. We feel, however, that the issue of replication needs to be repeated as per below.

REPLICATION

As this factor is particularly important in the choices made for proposed Scottish MPAs its definition and the policy relating to it is worth taking a little further.

As the JAS is both very high level and recent (2012) the definition contained in it is worth repeating. "Adequate replication of habitats, species and ecological processes in separate MPAs in each biogeographic area is desirable where possible." The definition of biogeographic area appears above. It should also be noted that the JAS very firmly dictates that delivery of the policy must be based on OSPAR principles to which the UK is legally committed.

The Ministerial Statement as with the Guidelines (paragraph 1.17) follows the intention of the JAS.

Confusion, however, reigns later in the Guidelines in Table 5 Stage 5 (vi). "For biodiversity, OSPAR MPA Guidelines recommend that there should be replication of features within MPAs in each biogeographic area. These areas extend across the seas around Scotland and into adjacent waters and are therefore not being used directly for the assessment of replication. This part of the guideline will be considered to have been met if there is more than one example of each feature within the network in Scottish waters."

The Consultation Document tries yet another approach. "Is there more than one example of each feature within the Scottish MPA network? If yes, is there replication across the OSPAR regions in which the feature is recorded?"

Here is the crux of the confusion in which Marine Scotland has invited us to join it. SFF believes that the drafters of the Act were working from the OSPAR Guidelines. They noted the requirement for replication and inserted that requirement in very general terms into their draft. No definition of what might require replication was inserted. It was left to Marine Scotland to attempt to interpret. This was done without reference to OSPAR Guidelines and resulted in yet another ill-defined definition, which certainly left the SFF understanding that if a feature required replicating then one replication was sufficient.

Unfortunately, it has been forgotten that even if replication were required it must occur at the level of the UK Network and not in the Scottish seas. For this purpose Scottish seas mean no more than the extent of territorial waters.

THE OSPAR POSITION

We have already seen that in its Guidance (2006-3) replication is defined as duplication. While it is obvious that duplication means two it also fulfils the definition of "more than one". This is important when we come to the meaning of the relevant part of the Act.

Nothing however remains simple when scientists get to work. Reference has been made to the change of emphasis which appears in the 2012 Assessment.

Habitats

The OSPAR requirement for habitat replication appears, therefore, to be required in the case of OSPAR designated threatened and/or declining habitats and where those habitats are not EUNIS level 3 habitats, those latter habitats.

Test 6 at Level 2 for large-scale habitats at EUNIS level 3 determined which are already represented within MPAs in Region II and III. The representation and replication tests for these habitats are met if they appear within an MPA, with a minimum pack size of 0.24 km²

How is the test for replication of broad scale habitats applied in Regions II and III? The threshold for replication of those habitats is 2. The outcome of the assessment is 71% of broad scale habitats in Region II and 76% in Region III are represented. Of that broad scale represented 2 (in Region II) and 1 (in Region III) are not meeting replication threshold of 2.

For both habitats and species the test now appears to be, "Most (70%) of the OSPAR threatened and/or declining habitats and species (with limited home ranges) [are] represented in the MPA network. 5% [or at least 3 sites] of all areas within each OSPAR region in which they occur is protected."

Extracted from the Report, the tables below show against which EUNIS level 3 habitats in both Regions II and III, replication has already been achieved and the number of replicates involved.

Species

It is more difficult to find guidance in relation to the replication of MPA protected species. Subject to further research, the test which seems to have found favour with OSPAR is that which appears as a test for the Channel matrix on page 28 of the ecological coherence report of 2012. That test is for replication and resilience having at least 3 examples of OSPAR threatened and declining species for which MPAs are considered appropriate control measures.

It is assumed that, although, this test was applied to a relatively small area, it is a test which is appropriate for each bio geographical area.

OSPAR has no requirement for replication between Regions. Its guidance on developing an ecologically coherent network of Marine protected areas (2006 – 3) is clear. Replication is one of the components of resilience. Resilience is not a requirement defining whether or not a network has been properly established. However replication is. Principle 11 states “Replication of habitats, species and ecological processes in separate OSPAR MPAs in each biogeographic area is desirable where possible. As with MPA network design in the UK context, replication is not a requirement unless the subject falls within the definition of threatened and/or declining.

Table 1. Reproduction of the findings for biogeographic provinces (OSPAR, 2013a) and number of replicates. Green indicates provinces where the test criteria have been met – at least 3% coverage and with replication (2 or more examples).

Region	Sub region	Province	Total Area (km ²)	Area protected (km ²)	MPA Coverage (%)	Replicates
(Holo) Pelagic						
Arctic			3 334 941	76 002	2.28%	7
Atlantic	East Atlantic Temperate	Cool-temperate Waters	6 690 666	462 869	6.92%	305
Atlantic	East Atlantic Temperate	Warm-temperate Waters	3 522 504	146 940	4.17%	45
Shelf and Continental Slope						
Arctic		North-East Greenland Shelf	277 879	0	0%	0
Arctic		Northeast Water Polynya	71 845	0	0%	0

Arctic		High Arctic Maritime	809 874	11 036	1.36%	4
Arctic		Barents Sea	1 258 371	67 285	5.81%	6
Arctic		South East Greenland – North Iceland Shelf	425 600	0	0.00%	2
Atlantic	East Atlantic Temperate	Norwegian Coast (Finnmark and Skagerrak and West Norwegian)	413 698	4 688	1.13%	13
Atlantic	East Atlantic Temperate	South Iceland-Faeroe Shelf	306 382	156	0.05%	9
Atlantic	East Atlantic Temperate	Boreal	710 185	55 823	7.86%	210
Atlantic	East Atlantic Temperate	Boreal – Lusitanian	455 947	39 882	8.75%	73

Atlantic	East Atlantic Temperate	Lusitanian – Boreal	151 202	16 844	11.14%	24
Atlantic	East Atlantic Temperate	Lusitanian (Cool and Warm)	118,277	3,972	3.36%	14
Atlantic	East Atlantic Temperate	Macaronesia in Azores	22 545	812	3.60%	4
Deep Sea						
Arctic				2235011	0	0 0
Atlantic				6 995 818	483 218	6.91% 23

Tables 2 and 3 show the area of each broad-scale habitat in Regions II and III, respectively, together with the total area assumed to be protected within an MPA boundary. All broad-scale habitats that are found in each Region are presented, several of which are not protected/covered yet by the MPA network. Those broad scale habitats that have not met the current threshold are highlighted in red.

A broad-scale habitat is considered represented if an area greater than 0.24 km² or a proportion greater than 3% of the respective MPA exists within the boundary of an MPA. Those that are represented in Region II and III are identified in the tables with green shading. Table 2. Broad-scale habitats that are represented in the network highlighted in green and the number of replicates that surpass a threshold of 2 highlighted in green for Region II.

Eunis Level 3 code	EUNIS Level 3 reference	Total area in region II (km ²)	Area in MPAs (km ²)	Replicates
A3.1	Atlantic and Mediterranean high energy infralittoral rock	3561.03	1321.43	45
A3.2	Atlantic and Mediterranean moderate energy infralittoral rock	3200.34	939.51	59
A3.3	Atlantic and Mediterranean low energy infralittoral rock	285.04	32.77	14
A4.1	Atlantic and Mediterranean high energy circalittoral rock	2336.26	646.84	30

A4.2	Atlantic and Mediterranean moderate energy circalittoral rock	20 647.69	2 299.60	42
A4.3	Atlantic and Mediterranean low energy circalittoral rock	9 340.66	539.16	13
A5.1	Sublittoral coarse sediment	112 235.98	14004.00	82
A5.2	Sublittoral sand	377 999.23	41 286.67	89
A5.3	Sublittoral mud	59 981.35	3987.55	44
A5.4	Sublittoral mixed sediments	16 769.33	1 521.03	45
A6.1	Deep-sea rock and artificial hard substrata	990.06	2.21	1
A6.2	Deep-sea mixed substrata	2 910.32	0.04	
A6.3 or A6.4	Deep-sea sand or deep-sea muddy sand	12 070.69		
A6.5	Deep sea mud	61 770.09	1 136.69	4
	Deep circalittoral mixed hard sediments	5 282.04	7.29	1
	Deep circalittoral seabed	4 209.21	3.61	4
	High energy circalittoral mixed hard sediments	105.02	6.42	3

	High energy circalittoral seabed	748.27	6.66	6
	High energy infralittoral mixed hard sediments	539.47	24.81	4
	High energy infralittoral seabed	4 317.23	108.60	15
	Low energy circalittoral mixed hard sediments	740.16	0.64	1
	Low energy circalittoral seabed	727.92	3.77	5
	Low energy infralittoral mixed hard sediments	0.34		
	Low energy infralittoral seabed	266.62	3.28	3
	Mid bathyal coarse sediment	172.48		
	Mid bathyal seabed	1 429.46		
	Moderate energy circalittoral mixed hard sediments	3 504.98	381.69	6
	Moderate energy circalittoral seabed	1 831.95	3.36	2

	Moderate energy infralittoral mixed hard sediments	488.94	121.12	3
	Moderate energy infralittoral seabed	875.87	15.44	12
	Upper bathyal coarse sediment	2 341.70		
	Upper bathyal seabed	711.55		
	Upper slope coarse sediment	6 886.33		
	Upper slope mixed hard sediments	3 920.06		
	Upper slope seabed	2 873.84		
	Total	726 071.54	68404.21	533

The replication threshold was set to the minimum (i.e. 2).

Table 3 Broad-scale habitats that are represented in the network highlighted in green and the number of replicates that surpass a threshold of 2 highlighted in green for Region III.

Eunis Level 3 code	EUNIS Level 3	Total area in region III (km ²)	Total area in MPAs (km ²)	Replicates
A3.1	Atlantic and Mediterranean high energy infralittoral rock	5 725.85	589.46	38

A3.2	Atlantic and Mediterranean moderate energy infralittoral rock	1 952.10	384.96	40
A3.3	Atlantic and Mediterranean low energy infralittoral rock	705.66	83.43	18
A4.1	Atlantic and Mediterranean high energy circalittoral rock	2 125.05	238.97	21
A4.2	Atlantic and Mediterranean moderate energy circalittoral rock	1 5235.35	1 222.81	35
A4.3	Atlantic and Mediterranean low energy circalittoral rock	12671.58	545.39	22
A5.1	Sublittoral coarse sediment	83 150.29	4445.12	42
A5.2	Sublittoral sand	86479.63	4064.04	52
A5.3	Sublittoral mud	28 720.20	1 119.19	32
A5.4	Sublittoral mixed sediments	20 941.01	780.57	26

A6.1	Deep-sea rock and artificial substrata	52.75	20.97	3
A6.2	Deep-sea mixed substrata	47.55	0.45	1
A6.3 or A6.4	Deep-sea sand or deep-sea muddy sand	648.72	3.72	2
A6.5	Deep-sea mud	1 467.40	24.68	2
	Deep circalittoral seabed	88 611.00	66.35	8
	High energy circalittoral mixed hard sediments	15.06		
	High energy circalittoral seabed	598.86	65.87	11
	High energy infralittoral mixed hard sediments	12.12		
	High energy infralittoral seabed	3 678.33	419.16	17
	Low energy circalittoral mixed hard sediments	6.84		
	Low energy circalittoral seabed	836.79	16.66	6
	Low energy infralittoral mixed hard sediments	19.73		
	Low energy infralittoral seabed	205.66	13.02	13

	Moderate energy circalittoral mixed hard sediments	47.22		
	Moderate energy circalittoral seabed	5 316.22	115.37	7
	Moderate energy infralittoral mixed hard sediments	2.58		
	Moderate energy infralittoral seabed	405.02	19.13	9
	Upper slope coarse sediment	309.99	0.02	
	Upper slope seabed	718.14		
	Total	360706.69	14239.32	405

The UK Position

The UK Act contains the following reference to replication “that the designation of sites comprised in the network reflects the fact that the conservation of a feature may require the designation of more than one site.”

The definition of ‘feature’ is much wider than the OSPAR definition and applies to any description of marine flora and fauna, habitat and features of geological or geomorphological interest.

However, as discussed elsewhere, no MPA can be designated unless it contributes towards the ECN and follows its rules for representation and replication.

The Scottish Position

The Scottish legislative position reflects the UK position. It should be remembered that the Scottish duty applies to territorial waters only. Those waters beyond the 12 mile limit and comprised in UK territorial waters are subject to the provisions of the UK Act.

The UK Position-Policy

In relation to network design and its components including representation and replication the positions contained in the UK Ecological Network Guidance and the Scottish Guidelines have been superseded by JAS.

Its approach to Resilience has already been discussed. While claiming to subscribe to the OSPAR concept of an ECN, it goes considerably further than the OSPAR requirements, referring to “Adequate replication of habitats, species and ecological processes”.

At this point, the SFF cannot help further. It requested from Marine Scotland a matrix setting out the replication of Scottish representative features in English waters but this has not yet been forthcoming.

ANNEX II

Species or Habitats, which do not appear on the OSPAR Threatened/Declining List and, therefore, which, following UK policy, should not appear as a supporting item for MPA designation are highlighted in grey.

Name	Code	Protected Feature	Stakeholder Associations
Clyde Sea Sill	CSS	Biodiversity protected features - Black guillemot, circalittoral sand and coarse sediment communities, Fronts Geodiversity protected features - Marine Geomorphology of the Scottish Shelf Seabed - sand banks, sand ribbon fields, sand wave fields	Not noted as threatened features on the OSPAR list of Threatened/declining Species and Habitats.
East Caithness Cliffs	ECC	Biodiversity protected features - Black guillemot	Black Guillemot is not on the OSPAR list of threatened species and is classed as stable/increasing in Scotland by JNCC (+3%) and SNH (<+1%). Unlikely to meet the criteria for protection

Name	Code	Protected Feature	Stakeholder Associations
Fetlar to Haroldswick	FTH	Biodiversity protected features - Black guillemot, circalittoral sand and coarse sediment communities, horse mussel beds, kelp and seaweed communities on sub littoral sediment, maerl beds, shallow tide-swept coarse sands with burrowing bivalves Geodiversity protected features - Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)	Horse Mussel (<i>Modiolus modiolus</i>) beds are under threat/declining in all OSPAR regions they occur. Maerl beds are only classified as under threat/declining in OSPAR region III but does feature on the UKBAP priority list. Shallow tide-swept coarse sands are not noted as a habitat in decline/threatened.
Loch Creran	LCR	Biodiversity protected features - Flame shell beds Geodiversity protected features - Quaternary of Scotland (components to be confirmed)	Flame Shell beds feature on the UKBAP list of priority features.
Loch Sunart	LSU	Biodiversity protected features - Flame shell beds , northern feather star aggregations on mixed substrata, serpulid aggregations.	Serpulid aggregations feature on the UKBAP list of priority species requiring protection. Northern feather star beds are protected under Annex 1 of the habitats directive

Name	Code	Protected Feature	Stakeholder Associations
Loch Sunart to the sound of Jura	SJU	Biodiversity protected features - Common Skate Geodiversity protected features - Quaternary of Scotland - glaciated channels/troughs (other components to be confirmed)	Common Skate is listed as threatened/declining in all OSPAR regions on the OSPAR list of threatened/ declining species. (Fisheries measure and not MPA protection required)
Loch Sween	LSW	Biodiversity protected features – Burrowed mud, native oysters, sub littoral mud and mixed sediment communities	Native oysters (<i>Ostrea Edulis</i>) beds are listed as threatened/declining in all OSPAR regions on the OSPAR list of threatened/ declining species. Maerl beds are only classified as under threat/declining in OSPAR region III but does feature on the UKBAP priority list.
Lochs Duich, Long and Alsh	DLA	Biodiversity protected features – Burrowed mud, flame shell beds.	Inshore deep mud with heart urchins and burrowed mud feature in the UKBAP list of priority species/habitats 'UK Biodiversity Group, Tranche 2 Action Plans, Maritime Species and Habitats, 1999'

Name	Code	Protected Feature	Stakeholder Associations
Monach Isles	MOI	Biodiversity protected features – Black Guillemot Geodiversity protected features – Marine Geomorphology of Scottish Shelf (Components to be confirmed); Quaternary of Scotland – landscape of aerial glacial scour	Black Guillemot is not on the OSPAR list of threatened species and is classed as stable/increasing in Scotland by JNCC (+3%) and SNH (<+1%). Unlikely to meet the criteria for protection
Mousa to Boddam	MTB	Biodiversity protected features – Sandeels Geodiversity protected features – Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)	Lesser Sandeels listed as a UKBAP priority species but not as threatened by OSPAR.

Name	Code	Protected Feature	Stakeholder Associations
North-west sea lochs and Summer Isles	NWS	<p>Biodiversity protected features – Burrowed mud, circalittoral muddy sand communities, flame shell beds, kelp and seaweed communities on sub littoral sediment, maerl beds, maerl or coarse shell grave with burrowing sea cucumbers, native oysters, and northern feather star aggregations on mixed substrata.</p> <p>Geodiversity protected features – Marine Geomorphology of the Scottish Shelf Seabed – banks of unknown substrate; Quaternary of \Scotland – glaciated channels/troughs, megascale glacial lineations, moraines; Seabed Fluid and Gas Seep – pockmarks: Submarine Mass Movement – Slide scars.</p>	<p>Only kelp/seaweed communities (Subtype SS.SMp.KSwSS.LsacR.CbPb only) requiring a cobbled/pebble substrate in less than 30m of water containing red seaweeds and kelp to qualify. Maerl beds are only classified as under threat/declining in OSPAR region III but does feature on the UKBAP priority list. Native oysters and burrowed mud feature on the OSPAR list of threatened/declining features and northern feather star aggregations are protected under the habitats direction annex 1 (Habitat only)</p>
Noss Head	NOH	<p>Biodiversity protected features – Horse mussel beds</p>	<p>Listed on the OSPAR list as threatened/declining feature.</p>

Name	Code	Protected Feature	Stakeholder Associations
Papa Westray	PWY	Biodiversity protected features – Black Guillemot Geodiversity protected features – Marine Geomorphology of the Scottish Shelf Seabed – Sand wave field	Black Guillemot is not on the OSPAR list of threatened species and is classed as stable/increasing in Scotland by JNCC (+3%) and SNH (<+1%).
Small Isles	SMI	Biodiversity protected features – Black Guillemot, burrowed mud, circalitterol sand and mud communities; fan mussel aggregations, horse mussel beds, northern feather star aggregations on mixed substrata, shelf deeps; white cluster anemone	White cluster anemone is listed as a UKBAP species. Northern feather star aggregations are afforded protection under the habitats directive annex 1 (habitat only) and the other features are present on the OSPAR list with the exception of Black guillemot.
South Arran	ARR	Biodiversity protected features – Burrowed mud, herring spawning grounds, kelp and seaweed communities, maerl beds, maerl or coarse shell gravel with burrowing sea cucumbers, ocean quahog (species), seagrass beds, shallow tide- swept coarse sands with burrowing bivalves.	All biodiversity protected features are listed as threatened/declining in the OSPAR list except Herring Spawning grounds. Herring is not listed as threatened/declining and isn't listed as endangered on IUCN and MPAs cannot be used as a fisheries management tool.

Name	Code	Protected Feature	Stakeholder Associations
Upper Loch Fyne and Loch Goil	LFG	Biodiversity protected features - Burrowed mud, flame shell beds, horse mussel beds, low or variable salinity habitats; ocean quahog (species), sub littoral mud and mixed sediment communities	Burrowed mud, Horse mussel beds and Ocean Quahog listed as threatened/declining on the OSPAR list. Flame shells, sub littoral mud and variable salinity habitats present on the UKBAP list.
Wyre and Rousay Sounds	WYR	Biodiversity protected features - Kelp and seaweed communities on sub littoral sediment, maerl beds Geodiversity protected features - Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)	Maerl beds are only classified as under threat/declining in OSPAR region III but does feature on the UKBAP priority list. Only kelp/seaweed communities Subtype SS.SMp.KSwSS.LsacR.CbPb protected, requiring a cobbled/pebble substrate in less than 30m of water containing red seaweeds and kelp to qualify.
Central Fladen	CFL	Biodiversity protected features - Burrowed mud Geodiversity protected features - Quaternary of Scotland - sub-glacial tunnel valley	Burrowed mud features on the UKBAP and OSPAR list of priority features.

Name	Code	Protected Feature	Stakeholder Associations
East of Gannet and Montrose Fields	EGM	Biodiversity protected features - Ocean quahog aggregations, offshore sub tidal sands and gravels, offshore deep sea muds	Ocean Quahog is listed as threatened/declining by OSPAR in region II only.
Faroe-Shetland sponge belt	FSS	Biodiversity protected features - Continental slope, deep sea sponge aggregations; ocean quahog aggregations; offshore sub tidal sands and gravels Geodiversity protected features - Marine Geomorphology of the Scottish Deep Ocean Seabed - sand wave field, sediment wave field; Quaternary of Scotland - continental slope channels; iceberg plough mark fields, prograding wedges; Submarine Mass Movement - slide deposits	Deep sea sponge aggregations are listed as threatened/declining by OSPAR. Ocean Quahog is listed as threatened/declining by OSPAR in region II only. Offshore sub tidal sands and gravel features on the UKBAP list of priority habitats

Name	Code	Protected Feature	Stakeholder Associations
Firth of Forth Banks Complex	FOF	Biodiversity protected features - Ocean quahog aggregations; offshore sub tidal sands and gravels; shelf banks and mounds Geodiversity protected features - Quaternary of Scotland - Moraines	Ocean Quahog is listed as threatened/declining by OSPAR in region II only. Offshore sub tidal sands and gravel features on the UKBAP list of priority habitats.
Geikie Slide and Hebridean slope	GSH	Biodiversity protected features - Burrowed mud; continental slope, offshore deep sea muds, offshore sub tidal sands and gravels Geodiversity protected features - Submarine Mass Movement - slide deposits, slide scars	Burrowed mud features on the UKBAP and OSPAR list of priority features. Offshore deep sea muds and sub tidal sands features on the UKBAP list of priority habitats
Hatton-Rockall Basin	HRB	Biodiversity protected features - Deep sea sponge aggregations; offshore deep sea muds Geodiversity protected features - Marine Geomorphology of the Scottish Deep Ocean Seabed - sediment drifts; Polygonal fault systems	Deep sea sponge aggregations are listed as threatened/declining by OSPAR. Offshore deep sea muds features on the UKBAP list of priority habitats.

Name	Code	Protected Feature	Stakeholder Associations
North-east Faroe Shetland Channel	NEF	Biodiversity protected features - Continental slope, deep sea sponge aggregations; offshore deep sea muds; offshore sub tidal sands and gravels Geodiversity protected features - Cenozoic Structures of the Atlantic Margin - mud diapirs; Marine Geomorphology of the Scottish Deep Ocean Seabed - contourite sand/silt; Quaternary of Scotland - prograding wedge; Submarine Mass Movement - slide deposits	Offshore deep sea muds features on the UKBAP list of priority habitats. Deep sea sponge aggregations are listed as threatened/declining by OSPAR.
West Shetland Shelf	WSS	Biodiversity protected features - Offshore sub tidal sands and Gravels	Offshore sub tidal sands and gravels feature on the UKBAP list of priority features.
North-west Orkney	now	Biodiversity protected features – Sandeels Geodiversity protected features - Marine Geomorphology of the Scottish Shelf Seabed - sand bank, sand wave field, sediment wave fields	Lesser Sandeels are included on the UKBAP list of priority species but not as threatened/declining by OSPAR.

Name	Code	Protected Feature	Stakeholder Associations
Norwegian boundary sediment plain	NSP	Biodiversity protected features - Ocean quahog aggregations, offshore sub tidal sands and gravels	Ocean Quahog is listed as threatened/declining by OSPAR in region II only.
Rosemary Bank Seamount	RBS	<p>Biodiversity protected features - Deep sea sponge aggregations; seamounts; seamount communities</p> <p>Geodiversity protected features - Cenozoic Structures of the Atlantic Margin - Rosemary Bank Seamount; Marine Geomorphology of the Scottish Deep Ocean Seabed - scour moats, sediment drifts, sediment wave fields; Quaternary of Scotland - iceberg plough mark field; Submarine Mass Movement - slide scars</p>	Deep sea sponge aggregations and seamounts are listed as threatened/declining by OSPAR
South-east Fladen	SEF	<p>Biodiversity protected features - Burrowed mud</p> <p>Geodiversity protected features - Seabed Fluid and Gas Seep – pockmarks</p>	Burrowed mud features on the UKBAP and OSPAR list of priority features.

Name	Code	Protected Feature	Stakeholder Associations
South-west Sula Sgeir and Hebridean slope	SSH	Biodiversity protected features - Burrowed mud; continental slope; offshore deep sea muds; offshore sub tidal sands and gravels Geodiversity protected features - Quaternary of Scotland - iceberg plough mark fields, prograding wedges; Submarine Mass Movement - slide deposits	Burrowed mud features on the UKBAP and OSPAR list of priority features. Offshore muds and sub tidal sands and gravels feature on the UKBAP list of priority features

Name	Code	Protected Feature	Stakeholder Associations
<p>The Barra Fan and Hebrides Terrace Seamount</p>	<p>BHT</p>	<p>Biodiversity protected features - Burrowed mud; continental slope, coral gardens (suspected); offshore deep sea muds; offshore sub tidal sands and gravels; orange roughy; seamounts; seamount communities (suspected)</p> <p>Geodiversity protected features - Cenozoic Structures of the Atlantic Margin - continental slope, Hebrides Terrace Seamount; Marine Geomorphology of the Scottish Deep</p> <p>Ocean Seabed - scour moat; Quaternary of Scotland - iceberg plough mark field, prograding wedges; Submarine Mass Movement - continental slope turbidite canyons, slide Deposits</p>	<p>Orange Roughy and Seamount habitat are listed as threatened/declining by OSPAR. As the coral gardens and seamount communities are 'suspected' they are data deficient and therefore do not qualify for protection using JNCC's own selection criteria. Offshore muds and sub tidal sands and gravels feature on the UKBAP list of priority features.</p>
<p>Turbot Bank</p>	<p>TBB</p>	<p>Biodiversity protected features – Sandeels, offshore sub tidal sands and gravels, shelf banks and mounds</p>	<p>Lesser Sandeels are included on the UKBAP list of priority species but not as threatened/declining by OSPAR.</p>

Name	Code	Protected Feature	Stakeholder Associations
Western Fladen	WFL	Biodiversity protected features - Burrowed mud Geodiversity protected features - Quaternary of Scotland - sub-glacial tunnel valleys	Burrowed mud features on the UKBAP and OSPAR list of priority features.