MCZ Team,
c/o Post Room
Nobel House
17 Smith Square
London
SW1P 3JR
Via email: MCZ@defra.gsi.gov.uk

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Name: Dr Matt Frost
Organisation: Marine Biological Association (MBA)
Email: matfr@mba.ac.uk

Consultation on MARINE CONSERVATION ZONES: Response from the Marine Biological Association

- The Marine Biological Association (MBA) is a Learned Society established in 1884. The MBA has about 1200 members and runs The Laboratory in Plymouth where approximately 60 staff work. MBA members have been at the forefront of providing scientific information to support marine environment protection, management and education and much of the scientific information that underpins decision-making about environmental protection has come from work undertaken at the Laboratory.

- The MBA membership is made up mainly of professional marine biologists and as such regularly invites its members to provide input on a range of issues. The MBA therefore provides a ‘clear independent voice to government’ on behalf of the marine biological community.

- The MBA has been supportive of the intention to establish Marine Conservation Zones as part of a wider MPA network and is particularly keen on seeing reference areas established as soon as possible in order to facilitate scientific research and a greater understanding of the marine environment (see comments below).

- The questions posed in the consultation require a specific knowledge of each site and a detailed understanding of the relevant data sources and their validity. That is a large task for each site. As a national body, we have taken an overview which comments on the ‘big picture’ but with some specific examples which challenge the selection of only certain sites for designation in 2013. We have also commented on approaches which identify only a very limited number of features as important in each candidate MCZ and suggested that many other features present should often be considered. We therefore focus mainly on generic issues (i.e. question 9). However, comments are provided specifically on the South of Falmouth site in order to illustrate what we believe are fundamental flaws in the use of evidence.
Consultation Questions for sites and features proposed in the 2013 tranche

Question 1: Do you agree that this site and specified features should be designated in the first tranche? Please explain and provide evidence to support your views as necessary.

- A1: South of Falmouth

The South of Falmouth site was proposed in order to meet a number of network targets and is also identified as having ‘additional ecological importance’ due to its location. It is also a site at severe risk of damage and deterioration with the conservation objectives being set as ‘recover’ for the named features. However, the site is listed in Annex A6 as a ‘site not suitable for designation’ and we believe that the inclusion of the site in this list undermines confidence in the process as described in Clause 1.5 of the consultation document. Clause 1.5 states “Whether an MCZ, and all of its features, are suitable for designation in the 2013 tranche depends on the levels of confidence in the scientific evidence and the balance between the site’s conservation advantages and the socio-economic costs”.

The levels of confidence in the scientific data are not the reason given for the site not being considered suitable probably as Clause 2.8.8 of the consultation document clearly states that the precautionary principle was used so that “…..where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. The South of Falmouth site has been identified as at risk so the precautionary principle applies here.

The reason given is due to socio-economic impacts. Despite the importance and vulnerability of the site, Annex A6 concludes “the advantages for this site do not justify the socio-economic costs”. It is, quite frankly, extremely difficult to see why the socio-economic costs of £1000 annually are judged as outweighing the benefit of restoring 25 km$^2$ of important and vulnerable habitat. This decision would suggest that the criteria for comparing the conservation advantages against socio-economic impacts are severely flawed. Conservation advantages come with considerable socio-economic benefits as outlined in the National Ecosystem Assessment (2011) and although these benefits are very difficult to quantify, the impact assessment has not done enough to make the link between ecological benefits and long-term socio-economic benefits. This is an issue not just for the South of Falmouth site but for all the sites as socio-economic considerations have, in the main, outweighed conservation benefits. It is also noticeable that the level of evidence required relating to the MCZs and the scrutiny to which this is subjected appears much higher than the evidence provided on the socio-economic impacts.

The MBA would therefore raise serious concerns over the value given to socio-economic costs versus conservation advantages. The decision relating to the South of Falmouth site would suggest that the socio-economic advantages of protected areas and habitat restoration have not been understood or considered in an appropriate fashion and the relative weighting given to socio-economic data versus evidence on MCZs needs to be urgently reconsidered.
**Question 2:** Are there any additional features (not recommended by the Regional MCZ Projects) located within this site that should be protected? Please explain and provide evidence to support your views as necessary?

NO COMMENT

**Question 3:** Do you have any comments on the proposed conservation objective(s)? Please provide evidence to support your comments as necessary?

NO COMMENT.

**Question 4:** Are there any significant reasons for alteration of this site’s boundary? Please explain and provide evidence to support your views as necessary.

NO COMMENT.

**Question 5:** Is there any additional evidence to improve data certainty for features within this site? If yes, please provide evidence.

NO COMMENT

**Question 6:** Are there any additional activities (that may have an impact on the recommended features) occurring within this site that have not been captured within the Impact Assessment? Please provide evidence to support your views.

NO COMMENT

**Question 7:** Do you have any new information on costs to industry not covered in the Impact Assessment, that would be directly attributable to MCZs as opposed to costs stemming from existing regulatory requirements, or evidence that suggests the need for changes to the methodologies or assumptions used in estimating costs (including in relation to fishing displacement)? If yes please provide evidence.

NO COMMENT

**Question 8:** Do you have any new information that was not available or used in the Impact Assessment to inform or quantify the value the benefits of MCZs?

NO COMMENT

**GENERAL COMMENTS**

**Question 9:**

- There is concern over the weight given to certain criteria related to the aim of having “ecologically viable marine protected areas of different sizes containing different habitats and species, connected by movements of adults and larvae, with a range of protection levels” (consultation document Clause 2.7.3 and criteria outlined in Clause 2.7.5). The current scientific understanding of how connectivity is applied in practice is still a ‘work
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in progress’ according to a recent Ospar report (Ospar Commission, 2012) so although the principle of a connected network is useful, a precautionary approach should be taken on the understanding that we are a long way from having all the scientific information available to apply this criteria for specific features and sites. The same can be said for ‘viability’. ‘Viability’ measures are crude and do not adequately represent what makes a habitat or other feature viable. An example is the extent of biogenic reef habitat in the Hilbre Island Group being considered ‘not meeting the minimum viability criteria’. Very often, the real test of viability is to ask the question “has it ‘always’ been there?”. If the answer is “Yes”, then the habitat or feature is viable. In summary, our understanding of connectivity and what constitutes ‘ecologically viable’ is still imperfect and could potentially lead to erroneous decisions being made if the criteria are applied too rigidly (some common sense is needed).

- The MBA is very disappointed that no reference areas have been put forward. Reference areas are vital if we are to build up our scientific knowledge with regard to the marine environment and its management. There have been calls for reference areas to support our scientific understanding of ‘conservation biology, resource economics and management’ for many years (e.g. see Agardy, 1994). It is therefore ironic that at a time when there is a focus on the need for more high quality evidence and improving our understanding of the marine environment, one of the key tools that would support this (i.e. the designation of reference areas) has been dropped entirely in its current form. The aim of obtaining better evidence to support a protected network must be seen to be supported by the establishment of reference areas that would facilitate research into issues including recoverability, vulnerability, viability and others. Reference areas are also vital for establishing reference conditions against which recovery can be monitored. They will also support other aims such as achieving Good Environmental Status under the Marine Strategy Framework Directive. As a research organisation the Marine Biological Association therefore would strongly urge UK Government to provide proposals on moving forward with reference areas at the earliest opportunity. We would also suggest that of the benefits of designating MCZs listed in the consultation document (Clause 3.3.12), ‘research and education’ be highlighted not just as a general benefit but as a key tool in establishing, supporting and informing management of the entire network.

- Clause 1.7 of the consultation states that “Defra expects to designate future tranches of sites to contribute to a UK contribution to an ecologically coherent network of marine protected areas. Sites recommended to Government by the Regional MCZ Projects that are not being proposed for designation in the first tranche may be included in later tranches”. This statement is vague and commits to no timetable for designation. A large amount of effort has gone in, through the stakeholder process, to obtaining support and ‘buy-in’ for the MCZ network. It is important that a firm timetable is put forward and the task of designating further MCZs is undertaken with some urgency whilst the current engagement and interest of all stakeholders is apparent.

- The MBA believe more thought should be given to the evidence requirements and clearer details provided on how evidence is used.
Evidence requirements:
- In giving evidence to the House of Commons Select Committee on Marine Science, the MBA raised concerns over unrealistic expectations when it comes to evidence from the marine environment. The MCZ process was established on the basis that ‘best-available evidence’ would be used and that “lack of full scientific certainty should not be a reason for postponing proportionate decisions on site selection”. Despite this assertion it would seem that issues of evidence / data quality have been fundamental in not designating the full suite of sites. The advantage of the stakeholder-led process was that it allowed for some scientific uncertainty whilst enabling experience and expert judgment to also be used in informing the selection of sites. Relatively speaking the UK has a wealth of knowledge relating to the marine environment. A Natural England report over a decade ago stated “by the turn of the century these surveys culminated in the UK having a greater knowledge of its marine environment and its conservation values than most other countries in the world”. (Laffoley, 2000). The UK has good knowledge of where important and representative habitats and species occur, an excellent research base and a track record in developing methods establishing links between activities and pressures (see the MarLIN programme at http://www.mba.ac.uk/marlin/). It is unfortunate therefore that rather than using the evidence we do have in order to move forward in managing our seas and providing urgently needed protection, the focus is on areas where there is a lot less certainty (such as viability, which is linked to the issue of long-term variability as measured by time-series).

Evidence use:
- An example of how evidence has been assessed inappropriately is in the ‘age of evidence’ criteria. The SNCBs used ‘age of evidence’ in assessing scientific confidence of feature condition and whereby data older than 12 years resulted in a low confidence scoring. This 12 year cut-off for data is referred to at a number of points in the SNCB advice to Defra (JNCC, NE, 2012) and has led sites not going forward in the first tranche for designation and therefore, the decision to have data older than 12 years old as a cut-off point is of fundamental importance to the whole process and yet was not widely publicized. This is odd as a 12 year old cut-off is fairly arbitrary with little scientific support. There has been some confusion over the evidence requirements and use amongst stakeholder groups and from an outside perspective the process has not been clear. Although the MBA fully supports the use of as wide an evidence base as possible, the way this evidence has been used has appeared to undermine a ‘stake-holder led’ process based on best available evidence.

- Some of the sites that have been included in the consultation have data uncertainty. That data uncertainty would be acceptable if all sites put forward by Regional Projects were in the consultation. An example is ‘Rock Unique’ in the Net Gain region where the presence of ‘Low energy circalittoral rock’ (which would be a difficult broad scale habitat to find alternative sites for) is uncertain, the FOCI habitat ‘Subtidal sands and gravels’ is from modeled data and therefore must be considered uncertain but other broad scale habitats are widespread and could be represented in a wide range of locations. If any sites were being held back, we would expect them to be ones with data uncertainty.
Also, some sites seem to have gone forward despite poor literature or other sources of information about the presence of features. An example is the Aln Estuary about which there seems to be remarkably little information found (see SAP benchmark scores and narrative and SNCB advice, 2012). Another is the Cumbrian coast (although SAP evidence scores were high). Again, that data uncertainty would be acceptable if all sites put forward by Regional Projects were in the consultation.

It is also noticeable that the degree of scrutiny to which the scientific evidence was subjected (firstly through the stakeholder process, then by the Scientific Advisory Panel (SAP) and then by the SNCBs) is not mirrored in the same way for information on socio-economic impacts.

- Identifying such a limited number of features as ‘important’ in each site is very unhelpful to management (through the identification of conservation objectives) of the site. There will be many features (especially species) that are rare, scarce, in decline or threatened with decline that are present within an area in addition to FOCI species. However, even the FOCI species present in a site seem to have been culled from site descriptions – probably because other sites are considered to ‘represent’ those features. For instance, Lundy has three FOCI habitats and five FOCI species that are not listed in the consultation. There is a danger that those ‘culled’ features will not generate management measures. Furthermore, the full FOCI species list is incomplete for species that are threatened and, for instance, we are aware that the Lundy Field Society has drawn attention to 22 additional species that are rare, scarce, in decline or threatened with decline at Lundy. Overall, the whole approach to informing the importance of a site for biodiversity conservation and to assist management of a site needs to be improved.

- Terminology used in the sites descriptions should be precise and is often ‘sloppy’. For instance, for the Cumbrian Coast cMCZ, the following statement “because it contains highly sensitive features (Honeycomb Worm (Sabellaria alveolata Reefs))” is not supported by the assessment of sensitivity published on www.marlin.ac.uk where S. alveolata reefs are assigned from ‘moderate’ to ‘very low’ sensitivities to a range of pressures.

- It is disappointing to see the crude conservation objectives of ‘maintain’ and ‘recover’ continued in the consultation. For instance, ‘Recover to reference condition’ should be spelt out but, all-in-all, the conservation objectives should be clearer.

- Finally, the MBA would also like to highlight the fact that the MCZs are not just fulfilling the aims of the UK Marine and Coastal Access Act 2009 but are also expected to contribute to the aim of meeting Good Environmental Status (GES) under the Marine Strategy Framework Directive). The failure to designate the suite of proposed MCZs, and in particular reference areas, could also have potential impacts on other UK obligations.

Dr Matthew Frost, Deputy Director Policy and Knowledge Exchange, on behalf of the Marine Biological Association
References


JNCC, NE (2012). JNCC and Natural England’s advice to Defra on recommended Marine Conservation Zones.

