Marine Biological Association written submission supplied for the Environmental Audit Committee inquiry into Marine Protected Areas, January 2014.

Written evidence submitted by Dr Matthew Frost, Deputy Director Policy and Knowledge Exchange, on behalf of the Marine Biological Association.

Summary of main points

1. The issue of determining management is vital as it relates to the fundamental issue of what we mean by a ‘protected site’. We therefore suggest that details on management measures are announced as soon as possible.

2. When considering socio-economics and marine protection there is a need to take a scientific approach and ensure equivalency in the areas of valuation and evidence requirements.

3. MCZ reference areas are key in helping us understand how marine ecosystems function with no direct anthropogenic pressures. The MBA would therefore suggest reference areas be prioritised in the next tranche of MCZs and their scientific research potential be recognized.

4. It is important that monitoring, research, management and other issues are considered across the range of marine environmental legislation, not in a piecemeal way. This also means ensuring that marine knowledge and expertise is utilised from a wide range of organisations such as Statutory Nature Conservation Bodies, Government Agencies, Marine Research Institutes and Learned Societies and Associations
5. The Marine Biological Association (MBA) is a Learned Society established in 1884 and incorporated by Royal Charter in 2013. The MBA has about 1400 members (including international members) and runs The Laboratory in Plymouth where approximately 60 scientific 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.

6. 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.

7. 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.

The plans for implementing the 27 so far approved MCZs.

8. The MBA is pleased to see that there is a progress in announcing the first tranche of MCZs. However, as the management measures are not yet established, it is difficult or impossible therefore to comment on how effective these MCZs will be at protecting vulnerable features.

9. The issue of determining management is vital as it relates to the fundamental issue of what we mean by a ‘protected site’. The lack of information on management measures allows interest groups to quote statistics and draw inferences without actual information, which is not good in the long run for a stakeholder led process. For example, the Defra minister announced in the press release that the new MCZs will join ‘over 500 marine protected areas’ and ‘the MCZs will cover an area roughly three times the size of Wiltshire’\(^1\) but this didn’t stop a lot of people talking about ‘paper parks’. We therefore suggest that details on management measures are announced as soon as possible.

10. Related to point 10, it is also important to note that ongoing stakeholder participation will be facilitated by good communication and education. It is important to provide regular, clear, concise information (not just a series of lengthy reports) for the public and interested parties.

11. The attributes that are included in those MCZs that are designated where SACs already exist include very few features and those features are often not ones that are threatened or would benefit additionally from MCZ status. It seems that the MCZ designation for such overlapping sites, as it stands, is of little worth for conservation.

**How those MCZs will be monitored, managed and enforced, and the needs of different stakeholders — including fishing, leisure and extractive industries — will be balanced against environment protection.**

12. Monitoring includes both biological monitoring (of quality against 'maintain' and 'recover' objectives) and monitoring of activities. Monitoring can also be an extensive undertaking so it is vital that there is adequate coordination of monitoring and data collation. For example, the United Kingdom Marine Monitoring and Assessment Strategy (UKMMAS) has a coordinating function and needs to be engaged in the process. Monitoring, correctly designed and coordinated can be ‘multi-purpose’ and meet the requirements of MPAs and other legislation such as the Marine Strategy Framework Directive.

13. Where damaging activities that need regulation have been identified, then the appropriate authorities will create appropriate bye-laws (it is assumed). ‘Gentleman’s agreements’ are unlikely to work but may be seen as a necessary compromise at least at first. The key point is that there should be a priority to instigate management measures if a feature of marine natural heritage importance is threatened or has been damaged in the past. Knowing what those features are and what pressures need taking-off requires good science and experienced and knowledgeable scientists. That will mean seeking help from as wide a range of scientific expertise as possible i.e. not purely those within the statutory agencies.

14. Enforcement will require the help of users as patrol boats everywhere is not feasible. Nevertheless, there will be locations that are, perhaps iconic or of special importance as reference areas that would benefit from local enforcement including wardens with boats.

15. When balancing the needs of environmental protection and industry it is important to note that, as indicated in previous evidence, socio-economics and conservation are not mutually exclusive, especially when considered at the appropriate time-scales. A healthy, functioning marine ecosystem benefits everyone in the long run even if some difficult short-term decisions have to be made. To use an analogy from fisheries, everyone knows that if too much is taken from fish stocks now, future fish production is compromised. Short-term restrictions (with immediate socio-economic impacts) are therefore necessary for long-term gain.

16. When considering socio-economics and marine protection there is therefore a need to take a scientific approach and ensure equivalency in two key areas a) valuation and b) in evidence requirements (see next section on evidence).

---

17. In terms of valuation some serious concerns have previously been raised by the MBA about the differing criteria applied for marine protection and socio-economic impacts. For example, a site originally proposed for designation (South of Falmouth) and identified as having ‘additional ecological importance’ due to its location was not designated as ‘the advantages for this site do not justify the socio-economic costs’. The MBA pointed out that as the socio-economic impact of designating this site of £1000 annually was judged as outweighing the benefit of restoring 25 km² of important and vulnerable habitat, the criteria for comparing the conservation advantages against socio-economic impacts are severely flawed. Previous impact assessments have not gone far enough in quantifying the economic benefits of conservation despite considerable progress being made in this area over the last few years through exercises such as the National Ecosystem Assessment. A recent report for example showed that to divers and anglers alone the value of protecting all the original 127 MCZs would be £730 – 1,310 million. Although it is inherently difficult to place monetary values on the environment (see point 18), this does not mean the socio-economic benefits of marine protection should be ignored.

The plans to improve the evidence base for considering potential further Zones, including the priorities and funding of the research bodies that will undertake the necessary research.

18. With reference to comment 14, it is important that research continues into goods and services provided by the marine environment and how industry and biodiversity values are compared.

19. 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.

20. Much is being done at the moment by Natural England and JNCC to improve the evidence base for future action. A major issue with the Regional Project process was that some of the available information (it was not evidence) of what habitats were where was badly flawed because it was based on acoustic survey and on algorithms used to predict seabed types. Continuing improvements in modelling and mapping are required both for MPAs and for MSFD so we would encourage this area of work as a key area for ongoing research and development.

21. A fundamental issue that spans the whole MCZ process concerns what is being looked for. The list of ‘features’ in the Ecological Network Guidance is good in parts (the Broad-Scale Habitats, most of the habitat Features of Conservation Importance) but the species list is flawed and inadequate.

---

3 http://uknea.unep-wcmc.org/
4 Kenter et al (2013). The value of potential marine protected areas in the UK to divers and sea anglers. UNEP-WCMC, Cambridge, UK.
22. We need, for biodiversity conservation, to better understand which species and, via those species, which habitats are most important to protect (to maintain our marine biodiversity). That work includes developing our knowledge of sensitivity of marine species informed by research into life history traits.

23. Understanding change and which species and biotopes are long-lived, slow growing and will not come back if lost, means understanding natural fluctuations and the degree of stability that exists in marine communities. Such an understanding comes from monitoring in highly protected areas (the Reference Area MCZs that have been set-aside) and requires a commitment to those long-term studies. The example set in the Skomer Marine Reserve over the past 30+years could be followed. There is also some research of historical sites that could be done to identify which are species and communities that are inherently changeable and might be expected to show no change.

24. The MBA would however emphasise that the decision to set aside Highly Protected Marine Reserves (Reference Areas) is a serious oversight. There are very few areas where scientists can investigate fundamental marine processes and how these processes operate naturally i.e. without anthropogenic impacts. MCZ reference areas are key in helping us understand how marine ecosystems function with no direct anthropogenic pressures. Issues such as stability of habitats and species can be better understood by using reference areas and they are also vital for establishing reference conditions against which recovery can be monitored. Reference areas will also support other aims such as achieving Good Environmental Status under the Marine Strategy Framework Directive. The MBA has previously pointed out the irony that reference areas were not progressed due to lack of evidence despite the reference areas themselves being a key tool for evidence gathering. The MBA would therefore suggest reference areas be prioritised in the next tranche of MCZs and their scientific research potential be recognized.

25. The current scientific understanding of how connectivity is applied in practice is still a ‘work 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. Then Marine Climate Change Impacts Partnership (MCCIP) is currently undertaking a review of how climate change might impact marine protected areas (due to report late 2014/early 2015) and this information will also be of relevance to MPA networks and connectivity.

26. Issues of evidence / data quality will continue to be fundamental issues when deciding on the designation of sites. The MBA raised would wish to reiterate its concerns over unrealistic expectations when it comes to evidence from the marine environment. The UK has a wealth of knowledge relating to the marine environment and a Natural England report over a decade ago stated “by the turn of the century these [marine] 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 continues to increase its knowledge base (for example there is major work underway as part of the MSFD to improve methods relating to the establishing of links between activities
and pressures). 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 always on ‘gaps’ and ‘uncertainty’.

**What the balance of factors should be — social and economic factors, as well as environmental factors — in considering further potential MCZs.**

27. Some human activities do threaten seabed biodiversity in particular - where we know they are occurring and are threatening some aspect of highly valued biodiversity, managing those activities needs to over-ride objections from industry or local users. However, there are many situations where human activities including commercial activities can continue and will not damage or cause unacceptable change to seabed biodiversity. The problem seems to be using science more effectively and dispelling myths (whether from industry or the statutory nature conservation bodies) about what ‘matters’. The MCZ process through the Regional Projects seems to have suffered greatly from commercial interests overwhelming the scientific input and that the Regional Projects did not include experienced ecologists on their staff - leading to the ‘poor quality’ of evidence (knowledge of what was where) that was identified by the MPAs Science Advisory Panel.

28. In order to address the balance of issues for future designation the comments made in points 15 – 17 need to be addressed. It is also important however to stress that the MCZs were decided in a stakeholder process in which socio-economic interests were already considered.

**The level of ambition in the programme to establish protected areas (including MCZs), compared with the need for biodiversity protection.**

29. The MCZ process has been driven by a flawed slogan from OSPAR - "establishing an ecologically coherent network" (the "of well-managed MPAs" part is fine). The SNCBs had to try to translate words that OSPAR still admit they do not understand. The Ecological Network Guidance (ENG) was therefore in some ways ambitious but in some ways naïve and the focus should be on identifying what it really matters to protect in the way of seabed biodiversity, why we are doing it, and how to do it.

30. It is important that to note that Charting Progress 2 (2010)\(^5\) identified serious impacts on and degradation of the marine environment. It is important therefore that there is an aim to recover and restore habitats, not just maintain the status quo. This also supports the aim of meeting Good Environmental Status (GES) under the MSFD. It is important that monitoring, research, management and other issues are considered across the range of marine environmental legislation, not in a piecemeal way. This also means ensuring that marine knowledge and expertise is utilised from a wide range of organisations such as Statutory Nature Conservation Bodies, Government Agencies, Marine Research Institutes and Learned Societies and Associations.

---