**Abstracts of presentations**

**Session 1, Day 1: Ecosystem-Based Management and MPAs**

**Christopher Rodgers: *Managing Coastal Marine Environments: Challenges for an Ecosystem-Based Approach for Protected Areas***

Developing an ecosystem based approach to managing the natural environment in protected areas faces special challenges in the case of coastal and tidal sites. The mosaic of existing protected area designations (SSSIs, SACs, SPAs, MPAs) is complex in its application to coastal marine protected areas, often overlapping, and – in its focus – to a large extent focussed on preventing damage by resource users within each protected site. In practice, damage to the marine environment can be occasioned by activities set at great distances from the protected area itself, and on which current legal mechanisms offer little purchase. Developing an ecosystem based approach to the protection of marine areas is essential but presents difficult challenges, some of which will be explored in this paper. The mosaic of protected areas situated at Lindisfarne (Holy Island) Northumberland will be used as an exemplar to illustrate some of these issues.

**Mia Pantzar: *Towards Ecosystem-Based Protection of Marine Environments – Investigating the scope for marine reserves in Northern Europe under the Marine Strategy Framework Directive***

My research investigates how the on-going implementation of the MSFD is influencing marine spatial protection in Northern Europe, and in particular the scope for marine reserves as a policy instrument for achieving the EBM objectives. By providing case studies from Sweden, the United Kingdom and the Netherlands, my research finds that the Directive is used as a legal imperative for meeting other commitments, such as to the Convention on Biological Diversity, but delivers little advancement toward marine spatial protection. The case studies confirm that the main challenges are regulatory vagueness and overlap, and a lack of scientific knowledge about marine ecosystems. Marine reserves are found to have continued negligible application due to low political acceptability, especially at governmental level, and an uncertainty about their environmental relevance. The research raises concerns about the EBM credentials of existing marine Natura 2000 areas and the need to better incorporate the high values accredited to marine environments into the balancing between exploitation and conservation

**Session 2, Day 1 Institutions and MPAs**

**Louisa Evans: *A comparative analysis of the social, ecological and institutional drivers of successful governance in large-scale Marine Protected Areas***

Analysis of large-scale environmental governance is notably absent in the literature on common-pool resources and social-ecological systems, which focus overwhelmingly on small-scale systems. Environmental problems, however, emerge at multiple scales, and often manifest themselves at large scales. Elinor Ostrom’s social-ecological systems framework provides an opportunity to systematically apply and test knowledge developed in small-scale systems to large-scale environmental governance. This presentation focuses on governance of large marine protected areas (MPAs). Many large MPAs are being established, yet we know very little about what contributes to their ecological and social performance. We use the MPA global database ([www.mpaglobal.org](http://www.mpaglobal.org/)) to identify large MPAs (marine portion larger than 10,000km2) with governance arrangements in place for five or more years. Our sampling criteria identified 12–15 MPAs in both temperate and tropical locations with sufficient secondary data to enable reliable coding across variables developed in a relational Social-Ecological Systems Meta-analysis Database (<http://sesmad.dartmouth.edu/>). These secondary data are complemented by targeted primary data collection through key informant interviews in each case. Comparative analysis of these cases interrogates the applicability of governance ‘design principles’ from the institutional analysis and biodiversity conservation literatures to large-scale systems, focusing in particular on notions of participation, representation and leadership at large scales.

**Sian Rees: *MPAs and human well-being: How can we align conservation with social and economic needs?***

*Global conservation policy in relation to the marine environment has recently made a significant bridge between the natural sciences and the social sciences. In 2010, contracting parties to the Convention on Biological Diversity adopted Aichi target 11 stating that, ‘by 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes’(CBD, 2010b). In 2014, following the Rio+20 conference, UN Member States proposed a set of Sustainable Development Goals (SDGs), to succeed the Millennium Development Goals (MDGs) as reference goals for the international development community for the period 2015-2030. The SGD demonstrate twin priorities of protection of the Earths life support system with poverty reduction (Griggs et al., 2013). The SDGs advocate a ‘triple bottom line’ approach to maintaining human wellbeing; these being economic development, environmental sustainability and social inclusion (Sachs, 2012). SDG Goal 14 to ‘conserve and sustainably use the oceans, seas and marine resources for sustainable development’ reaffirms the CBD target ‘By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientifi­c information’ but places this goal firmly within the economic and social context to aid global development. This presentation will critically review how conservation objectives are currently aligned with social and economic and highlight some practical challenges that need to be overcome for marine conservation to meet the ‘triple bottom line’.*

**Session 3, Day 1 Science and Policy in MPAs**

**Alex Caveen: *The controversy over MPAs: science meets policy***

*This talk is about a controversy which has pre-occupied marine governance across the world during the past 20 years, and shows little sign of resolution. This is the debate over whether marine reserves MRs) are a better means of protecting commercial fish stocks and marine biodiversity than is conventional fisheries management (CFM; which includes quota restrictions, gear regulations, and minimum landing sizes) combined with multi-use marine protected areas (MUMPAs). The debate is between ‘nature protectionists’ (NPs) who argue for an extensive network of marine reserves (MRs) or no-take zones (NTZs) in which all fishing activity would be legally prohibited; and ‘social conservationists’ (SCs) who argue for CFM complemented by carefully selected spatial restrictions designed to protect spawning areas of target fish and biodiversity. The book has six objectives: (a) to explain the extraordinary speed with which the NP argument gathered pace to make MRs the most favoured global policy initiative in current marine management policy (Chap. 2); (b) to confirm the ascendancy of the MR model in the academic literature (Chap. 3); (c) to discuss whether scientific advocacy for MRs has exceeded the limits of scientific objectivity by introducing a pro-MR bias into the peer-review process (Chap. 4); (d) to examine the scientific credentials of the case for MRs (Chap. 5); (e) to test whether NP or SC discourses have prevailed in the recent designation of marine conservation zones (MCZs) in the UK (Chap. 6); and (f) to discuss the wider implications of the debate between NR and SC, including whether they can be reconciled in practice if not in principle (Chap. 7).*

**Andrea Camedda and G. Andrea de Lucia*: The Benefits and Challenges of ecological networks: the case of the Sardinian network for the conservation of marine turtles***

This presentation focusses on the importance of the concept of network for achieving environmental targets. Within the Mediterranean context, we have analyzed the process and the functioning of the Sardinian Regional Network (SRN) for the conservation of large marine vertebrates with the aim to improve this system and to give suggestions useful for other networks. The need of conservation of large marine vertebrates (sea turtles, sharks and marine mammals) is fundamental at global level as they are on top of the food chain and are important as biodiversity resources. The establishment of networks at different geographic scales are necessary for their conservation according to international conventions (Washington Conv., 1973; Barcelona Conv., 1976; Berna Conv., 1979; Bonn Conv., 1979; Habitat Dir., 1992). The study reveals that the protection of marine turtles only at local level is ineffective for their migratory habit; the use of different marine habitats like beaches, open sea and coastal shallow waters, implicating a difficult institutional organization for the monitoring and protection of these species. Using the case of the SRN, recommendations are offered to improve networks’ effectiveness and the successful conservation of the Mediterranean populations of sea turtles.

**Session 4, Day 1 MPAs Designation in the UK**

**Margherita Pieraccini: *Designating MPAs in the UK: accounting for socioeconomic issues***

The Marine and Coastal Access Act 2009 (MCAA) explicitly allows socio-economic considerations to play a part at the designation stage of Marine Conservation Zones (s 117(7)). This move is both unique and unprecedented in domestic and European nature conservation law (reliant on a more technocratic approach and based on scientific grounds for designation only), and if future nature conservation legislation follows the MCAA approach, it is important to reflect on and learn from this first experience of accounting for socio-economic issues when designating conservation areas. This presentation provides a critical reading of the way socio-economic evidence was framed in the MCZs designation process, during 1)the participatory regional stakeholders meetings and 2) in the Impact Assessments. In relation to 1) it provides reflections on participation in environmental decision-making, drawing on empirical research and on Julia Black’s distinction between ‘thin’ and ‘thick’ proceduralisation. The argument put forward is that the process of designation of MCZs is an example of ‘thin’ proceduralisation and that a move towards ‘thicker’ forms would benefit from acknowledging the existence of multiple knowledges within each participant and from deconstructing the dichotomy between socio-economic and ecological aspects in thinking about conservation. In relation to 2) it identifies a series of shortcomings in IAs, rendering IAs weak both as a reflexive mechanism and a rigorous effective tool. These shortcomings stem from a variety of causes, -including the internal paradoxes of IAs (between rational decision-making and less regulation) and uncertainty (managerial, scientific, regulatory) leading to unreliable evidence that is mistrusted by those affected.

**Tom Appleby: *Sirens of the sea? MPA designation on the Isle of Arran***

 The Lamlash Bay no take zone was the first and only community proposed no take marine reserve in the UK.  To create the marine reserve required marine management in Scotland to rethink its relationship with the marine environment and local communities. This paper explores the early development of the proposal and the actions the local community took to convince decision makers to bring in the reserve.  These ranged from exploring the public nature of the fishery to public petition of the Scottish Parliament to threats of legal action for failure to process the application. In September 2008 the no take zone was granted.  Since then community proposed a new marine protected area under the Marine (Scotland) Act 2010 around the south of Arran, in July 2014 the marine protected area was established and in June 2015 management measures were announced. The paper offers commentary on that process.

**Session 1, Day 2 UK case studies**

**Margherita Pieraccini: Divergent perspectives of new marine protected areas: comparing stakeholder legal consciousness in Scilly and Barra, UK.**

The legal establishment of protected areas is often associated with a situation of conflict arising between conservation and other human activities in particular spaces. This is primarily due to the fact that protected areas law requires changes in the behavior of resource users. Conservation conflicts arising from the establishment of protected areas are well documented in the social science literature and attempts are made to find ways to reduce such conflicts. Yet, what of cases in which the establishment of protected areas serve to officialise existing sustainable practices and may contain an element of future proofing? Do they still generate practices of resistance and conflict? These questions are answered in this paper comparing two case studies where primary qualitative research was conducted by the ESRC “Ecologies and Identities” project team: the designation of new Marine Conservation Zones under the Marine and Coastal Access Act 2009 in the Isles of Scilly (South West of England) and the designation of a new Special Area of Conservation under Council Directive 92/43/EEC (the Habitats Directive) in Barra (Scottish Outer Hebrides). Both protected areas are highly unlikely to impose changes in sea-users‟ behaviour, as in both cases they validate existing practices and are future proofing, in the sense that they offer tools that can be used to minimize the effects of potential future shocks and stresses, presently unknown. Yet, while in Scilly the new Marine Conservation Zones have been perceived as a positive addition to the seascape, in Barra the Special Area of Conservation has been heavily contested by the local community. The islanders’ different perspectives towards protected areas law can be described as divergent “legal consciousness”. “Legal consciousness” is a socio-legal concept concerned with the ways in which the law is experienced, interpreted and re-shaped by ordinary people. In these case studies, legal consciousness is a dependent variable, being the product of three main causes: history, power relationships (between regulators and regulatees) and risk.

**Ruth Brennan: *Cultural transformations in the Scottish marine policy process: the story of Barra***

On the island of Barra in the Outer Hebrides, Scotland, the challenges and forces conditioning the community are natural and social. Buffeted by the Atlantic sea and perched at the periphery of the most westerly inhabited islands in Scotland, linguistically different to mainland Scotland, religiously distinct from much of the rest of the Hebrides and bearing the psychological legacy of nineteenth century Highland Clearances (mass evictions of people to make way for sheep-farms and hunting-estates), this case-study illustrates how a social-ecological system responds to the dominant narrative of conservation in the marine policy environment. This presentation discusses the cultural depths of a conflict between the local community and the Scottish Government around the creation of two marine protected areas (MPAs) off the coast of the island. Barra’s rich maritime heritage suggested the presence of embedded values that appeared to be colliding with values driving the MPA designation process. Visual participatory methods were used to understand what 'conservation' means for the islanders and to find a way of connecting the worldviews of decision-makers with the marine environment lived and experienced by the community. The story of Barra exposes the perils of isolating the human dimension of conservation and planning that ensures sustainable livelihoods from the natural ecosystem conservation dimension. It considers how challenging the dominant narrative of conservation through the articulation of competing realities can create space for different narratives to emerge. It provides insights into the role played by competing value systems in conflict around natural resource management and conservation.

**Session 2, Day 2 International case studies**

**Richard Dunne: *Marine Governance in the Chagos Archipelago – a conservation success story but the failure of an MPA?***

On 1 April 2010 a marine reserve was established in the waters of the Chagos Archipelago (British Indian Ocean Territory) extending out to 200 nautical miles. This presentation discusses why the Chagos Marine Protected Area (MPA), once hailed by conservationists as the world’s largest ‘no-take’ MPA, was immediately so controversial. Against the history of marine governance in the Chagos it considers whether the announcement of the MPA was necessary to further conservation aims; whether it was established in good faith; to what extent it ignored the former inhabitants of the islands; and how it infringed the rights of Mauritius. It draws on the challenges it has caused in the English courts, and the consequences of the MPA in international law. It concludes with an apparent conundrum: How can the Chagos represent a conservation success and yet be an example of a failed MPA?

**Stefania Coppa and Margherita Pieraccini: *Conservation of biological resources and governance challenges in the Sinis MPA (Sardinia, Italy)***

Many marine protected areas around the world fail to achieve their biological targets due to non-compliance with the management rules in place, thus becoming characterised as ‘paper parks’.  The academic literature has presented various solutions to this problem. This paper contributes to the academic discussion by drawing on critical regulation theory to assess and address the compliance gap in MPAs. The theoretical insights are then concretised using the case study of a large Italian MPA (the “Penisola del Sinis-Isola di Mal di Ventre”), employing a multi-disciplinary perspective built on biological and socio-legal expertise. Biological research shows that the Sinis MPA is not achieving its nature conservation goals, primarily because of high and uncontrolled human exploitation of biological resources. To investigate and explain the reasons for such failure, primary qualitative research in the form of semi-structured interviews was conducted with key stakeholders at the local and regional level in 2014, followed by stakeholder and public workshops in 2015 to discuss the interviews' findings collectively. The results of the qualitative research are analysed using regulation theory, which enables a sophisticated framing of non-compliance motivations and solutions. The analytical tools developed in this paper may be applicable to other MPAs experiencing compliance issues.