

## Theme Session B

### The science and tools for the management of networks of Marine Protected Areas

Conveners: Henrique Queiroga (Portugal), Helen Bailey (USA), and Elsa Vázquez Otero (Spain)

#### Agenda and Orders of the Day for:

Monday 15 September 2014, 16:30–19:00 – Modular Room 1

Tuesday 16 September 2014, 10:30–18:00 – Modular Room 1

- 1) Opening and introduction 16:30
- 2) Appointment of rapporteur
- 3) Presentation of papers

CM Code		Time
<b>MONDAY 15 SEPTEMBER 2014, 16:30–19:00 – Modular Room 1</b>		
B:01 Oral	<b>Title:</b> Wandering Mussels: using natural tags to identify connectivity matrices amongst Marine Protected Areas <b>Authors:</b> Inês Gomes, Laura G. Peteiro, Rui Albuquerque, Steve E. Swearer, and Henrique Queiroga <b>Keywords:</b> natal source, trace element chemistry, <i>Mytilus</i> , elemental fingerprinting, LA-ICPMS, population connectivity	16:45
B: 02 Oral	<b>Title:</b> Identification and management implications of whale movement corridors and connectivity among a network of marine protected areas <b>Authors:</b> Helen Bailey, Bruce Mate, Ladd Irvine, Daniel Palacios, Elliott Hazen, Steven Bograd, Karin Forney and Evan Howell <b>Keywords:</b> marine protected areas, seascape ecology, habitat model, top predators, national marine sanctuaries	17:00
B: 03 Oral	<b>Title:</b> Post-breeding season migration patterns of a top predator, the harbor seal ( <i>Phoca vitulina richardii</i> ), from a marine protected area in Alaska <b>Authors:</b> Jamie Womble and Scott M. Gende <b>Keywords:</b> marine protected area, pinniped, harbor seal, migration, site fidelity, conservation	17:15
B: 04 Oral	<b>Title:</b> Towards the development of an MPA network of in the Gulf of Mexico; modeling larval drift, connectivity, and source/sink regions. <b>Authors:</b> Michael Drexler and Cameron H. Ainsworth <b>Keywords:</b> population connectivity, ecosystem model, MPA, Atlantis	17:30

B: 05 Oral	<b>Title:</b> Effects of marine protected areas, environmental conditions, and biological interactions on the abundance of echinoderms on Georges Bank	17:45
	<b>Authors:</b> Judith Rosellon-Druker and Kevin D.E. Stokesbury	
	<b>Keywords:</b> MPA, predator-prey interactions, essential habitat, spatial analysis, Ecosystem Based Fisheries Management	
B: 06 Oral	<b>Title:</b> MPA design: modelling species distribution with ENFA and MADIFA approaches	18:00
	<b>Authors:</b> N. Sánchez-Carnero, D. Rodríguez-Pérez, E. Couñago, F. Le Barzik, F. and J. Freire	
	<b>Keywords:</b> marine protected area, habitat suitability, ENFA, MaDiFA	
B: 07 Oral	<b>Title:</b> Combining multispecies home range and distribution models to evaluate the optimal design of MPAs	18:15
	<b>Authors:</b> David Abecasis, Pedro Afonso, and Karim Erzini	
	<b>Keywords:</b> marine reserve, acoustic telemetry, species distribution models, vulnerability to fishing	
B: 08 Oral	<b>Title:</b> Maerl beds in Galician Marine Protected Areas. How the scientific research can contribute to their management	18:30
	<b>Authors:</b> Viviana Peña, Rodolfo Barreiro, Ignacio Bárbara, Javier Cremades, Pilar Díaz, Cristina Pardo, Lúa López, Belén Carro, Cristina Piñeiro, and Verónica García	
	<b>Keywords:</b> biogenic habitats, conservation, maerl beds, management	
B: 09 Oral	<b>Title:</b> The MPA "Parc naturel marin d'Iroise" (France, Brittany), a zone of high conservation value for kelp forest biodiversity	18:45
	<b>Authors:</b> Marine Robuchon, Lucía Couceiro, Régis Gallon, Line Le Gall, and Myriam Valero	
	<b>Keywords:</b> genetic tools, <i>Laminaria digitata</i> , <i>Laminaria hyperborea</i> , seaweed communities, species distribution modelling, refuge area	

**TUESDAY 16 SEPTEMBER 2014, 10:30–18:00 – Modular Room 1**

B: 10 Oral	<b>Title:</b> Marine protected areas in the Atlantic Arc: "paper reserves" or effective management tools?	10:30
	<b>Authors:</b> Inmaculada Álvarez-Fernández, Nuria Fernández, and Juan Freire	
	<b>Keywords:</b> marine reserves, MPA, management, performance, Atlantic Arc	
B: 11 Oral	<i>Withdrawn</i>	10:45
B: 12 Oral	<b>Title:</b> Adaptive management based on monitoring of marine protected areas in California	11:00
	<b>Authors:</b> L.W. Botsford, J.W. White, E.A. Moffitt, K.J. Nickols, M. E. Carr, F. Cordoleani, L. A. K. Barnett, M. L. Baskett, and A. Hastings	
	<b>Keywords:</b> marine protected areas, monitoring, adaptive management	
B: 13 Oral	<b>Title:</b> FishSET: a spatial economics toolbox to better incorporate fisher behavior into fisheries management	11:15
	<b>Author:</b> Alan Haynie	
	<b>Keywords:</b> fleet behavior, location choice, software, model comparison, marine protected areas	

B: 14 Oral	<b>Title:</b> Taking into account medium term impact of conservation measures on mixed fisheries across the MPA network in the Eastern English Channel for conservation planning	11:30
	<b>Authors:</b> Yves Reecht, Sigrid Lehuta, Loïc Gasche, Sandrine Vaz, Stéphanie Mahévas, Robert J Smith, and Paul Marchal	
	<b>Keywords:</b> MPAs, systematic conservation planning, fleet dynamics, model coupling, Eastern English Channel	
B: 15 Oral	<i>Withdrawn</i>	
B: 16 Oral	<b>Title:</b> Baie ny Carrickey Closed Area: Managing fishermen to manage Marine Protected Areas	11:45
	<b>Authors:</b> Isobel Bloor, Peter Duncan, Sam Dignan, Lee Murray, and Michel Kaiser	
	<b>Keywords:</b> MPAs, closed areas, crustaceans	
B: 17 Oral	<b>Title:</b> Fisheries management measures in an MPA: socioeconomic impact assessment and governance issues in the case of the German small scale gillnet fisheries around the island of Fehmarn in the Baltic Sea	12:00
	<b>Author:</b> Leyre Goti	
	<b>Keywords:</b> MPA, small scale fisheries, Baltic Sea, economic impact assessment, governance	
B: 18 Oral	<b>Title:</b> Ramsey Marine Nature Reserve Fisheries Management Zone: A novel approach to mitigating the socioeconomic impacts of an MPA	12:15
	<b>Authors:</b> Sam Dignan, Isobel Bloor, Peter Duncan, Michel Kaiser, Lee Murray, and Kevin Kennington	
	<b>Keywords:</b> marine nature reserve, cooperation, ecosystem capital, fuel costs	
B: 19 Oral	<b>Title:</b> Changes in species abundance, richness, diversity and community structure after three years of protection. Protection evidences?	12:30
	<b>Authors:</b> D. Fernández-Márquez, P. Pita, N. Alborés, N. Fernández-Rodríguez, and R. Muiño	
	<b>Keywords:</b> marine protected areas, community structure, protection effects, marine fishery reserve, Galicia; Atlantic coast, multivariate analysis	
	<b>Discussion</b>	12:45
<b>LUNCH</b>		
B: 20 Oral	<b>Title:</b> A Question of Scale: Evaluating the impact of marine protected areas off of New England on groundfish productivity	15:00
	<b>Authors:</b> Lisa A. Kerr, Jake Kritzer, and Steven X. Cadrin	
	<b>Keywords:</b> marine protected areas, groundfish, spatial and temporal scale	
B: 21 Poster	<b>Title:</b> Predicting diversity hot-spots using data from scientific fisheries surveys	15:15
	<b>Authors:</b> A.K. Miriam Püts, W. Nikolaus Probst, and Kay Panten	
	<b>Keywords:</b> biodiversity, species distribution, distribution models, GAM fisheries surveys, ecological monitoring	

B: 22 Poster	<b>Title:</b> Seabed mapping and Vulnerable Marine Ecosystems protection in the high-seas fisheries: Four case studies on progress in the Atlantic Ocean	15:17
	<b>Authors:</b> P. Durán Muñoz, M. Sacau, J.L. Del Río, L.J. López-Abellán, and R. Sarralde	
	<b>Keywords:</b> Atlantic Ocean, bottom fisheries, closed areas, habitat mapping, high-seas, protection, Vulnerable Marine Ecosystems	
B: 23 Poster	<b>Title:</b> Unravelling the role of marine fin-fish farms on the design, implementation, and management of networks of protected areas for the conservation of marine top predators	15:19
	<b>Author:</b> Bruno Díaz López	
	<b>Keywords:</b> MPAs, marine aquaculture, top predators, coastal conservation	
B: 24 Poster	<b>Title:</b> The effect of consumers' depletion on the resistance of the seagrass <i>Posidonia oceanica</i> to the invasion of the macroalga <i>Caulerpa racemosa</i> in a Mediterranean MPA	15:21
	<b>Authors:</b> Sarah Caronni, Chiara Calabretti, Maria Anna Delaria, Giuseppe Bernardi, Augusto Navone, Anna Occhipinti-Ambrogi, Pieraugusto Panzalis, and Giulia Ceccherelli	
	<b>Keywords:</b> Marine protected area, predation, spread, resistance, <i>Caulerpa racemosa</i> , <i>Posidonia oceanica</i>	
B: 25 Poster	<b>Title:</b> Spear fishing ban in MPAs: the rational choice?	15:23
	<b>Authors:</b> Pablo Pita and Diana Fernández-Márquez	
	<b>Keywords:</b> MPA, spearfishing, biological impacts, economic benefits	
B: 26 Poster	<b>Title:</b> Habitat characterization of intertidal populations of the purple sea urchin, <i>Paracentrotus lividus</i> (Lamarck, 1816), in north Portugal	15:25
	<b>Authors:</b> Rula Domínguez, José Manuel Parada Encisa, and Iacopo Bertocci	
	<b>Keywords:</b> sea urchin, <i>Paracentrotus lividus</i> , intertidal, rock pools, spatial scale	
B: 27 Poster	<b>Title:</b> Evaluating the efficiency of no-take areas to restore fish stocks – the Swedish experience	15:27
	<b>Authors:</b> A-B. Florin, L. Bergström, and U. Bergström	
	<b>Keywords:</b> MPA, no-take zones, Licknevarpefjärden, Gotska Sandön	
B: 28 Poster	<b>Title:</b> A benign technique for mapping coral distribution in the closed areas of the Rockall Plateau	15:29
	<b>Authors:</b> Fiona D. McIntyre, Francis Neat, and Paul G. Fernandes	
	<b>Keywords:</b> cold-water coral, towed camera, geostatistics	
B: 29 Poster	<b>Title:</b> Using elemental microchemistry, fatty acid profile, and geometric morphometrics to identify goose barnacle origin	15:31
	<b>Authors:</b> R. Albuquerque, H. Queiroga, C.R. Correia, R. Calado, and S.M. Leandro	
	<b>Keywords:</b> goose barnacle, ICP-MS, fatty acid profile, geometric morphometrics, source of origin, discriminant function analysis	

B: 30 Poster	<b>Title:</b> Using variable transects widths to study rocky reefs fishes in poor visibility environments, a suitable technique for monitoring marine protected areas from Galicia	15:33
	<b>Authors:</b> D. Fernández-Márquez, A. Tubio, R. Muiño, and P. Pita	
	<b>Keywords:</b> marine protected areas, underwater visual census (UCV), transect wide, low-visibility environments	
B: 31 Poster	<b>Title:</b> A new method for assessing the underwater seascape for marine tourism management in Marine Protected Areas	15:35
	<b>Authors:</b> Cristina Piñeiro-Corbeira, Raquel de la Cruz Modino, Mercedes Olmedo, and Rodolfo Barreiro	
	<b>Keywords:</b> marine protected areas, underwater seascape, perceptible seascape elements, potential observation index, snorkelling	
B: 32 Poster	<b>Title:</b> Using acoustic telemetry to measure fine-scale movement and interactions of marine animals: implications for Marine Protected Areas	15:37
	<b>Authors:</b> J.E. Ehrenberg, T.W. Steig, C.H. Greene, and I. Brosnan	
	<b>Keywords:</b> acoustic telemetry, fine-scale movement, species interaction	
B: 33 Poster	<b>Title:</b> Digital image-based Area/Weight-Models improve weight estimates of important North Sea fish	15:39
	<b>Authors:</b> Florian Krau, Sven Hammann, and Joachim Gröger	
	<b>Keywords:</b> whiting ( <i>Merlangius merlangus</i> ), Atlantic cod ( <i>Gadus morhua</i> ), Area-Weight-Model, digital imaging	
B: 34 Poster	<b>Title:</b> Mismatch between biological, exploitation, and governance scales and ineffective management of sea urchin ( <i>Paracentrotus lividus</i> ) fisheries in Galicia	15:41
	<b>Authors:</b> Rosana Ouréns, Inés Naya, and Juan Freire	
	<b>Keywords:</b> metapopulation, denso-dependency, management, sea urchin, spatial structure, rotations, reserve networks	
B: 35 Poster	<b>Title:</b> Inventory and Designation of Marine Natura 2000 Areas in the Spanish Seas, the LIFE+ INDEMARES project	15:43
	<b>Author:</b> David Peña Uceda	
	<b>Keywords:</b> biodiversity, Marine Natura 2000 Network, Sites of Community Importance (SCIs), Special Protection Areas for Birds (SPAs)	
	<b>Discussion</b>	15:45
	<b>BREAK</b>	16:30
	<b>End of session</b>	18:00