

**Theme Session M**  
**Ecological consequences of reduced body size**  
**of organisms in the future ocean**

Conveners: Antonio Bode (Spain), Tara Marshall (UNIABDN), and Xosé Anxelu G. Morán (Spain)

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

Monday 15 September 2014, 16:30–19:00 – Modular Room 6

Tuesday 16 September 2014, 10:30–16:30 – Modular Room 6

- 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 6</b>		
M: 01 Oral	<p><b>Title:</b> Change in size of deep-sea demersal fish over depth and time</p> <hr/> <p><b>Authors:</b> B.L. Mindel, F.C. Neat, T.J. Webb, and J.L. Blanchard</p> <hr/> <p><b>Keywords:</b> Deep sea, community ecology, continental slope, L(max), time series, bathymetric gradient</p>	16:30
M: 02 Oral	<p><b>Title:</b> Effects of rebuilding cod size structure in a warmer Barents Sea</p> <hr/> <p><b>Authors:</b> Bjarte Bogstad and Jennifer A. Devine</p> <hr/> <p><b>Keywords:</b> cod, Barents Sea, size structure, rebuilding</p>	16:45
M: 03 Oral	<p><b>Title:</b> Contrasting patterns in fish size spectra across geographic and bathymetric gradients: An Atlantic-Mediterranean comparison</p> <hr/> <p><b>Authors:</b> M. Hidalgo, A. Quetglas, M. Delgado, A. Esteban, L. Gil de Sola, F. Ordines, L. Rueda, A. Punzón, and E. Massutí</p> <hr/> <p><b>Keywords:</b> Comparative analyses, fish communities, fishing impact, size-based indicators, size-spectra, spatial heterogeneity</p>	17:00
M: 04 Oral	<p><b>Title:</b> The consequences of fishing-induced changes in predator size for top-down control of prey populations</p> <hr/> <p><b>Authors:</b> Rebecca L. Selden, Robert R. Warner, and Steven D. Gaines</p> <hr/> <p><b>Keywords:</b> ontogenetic, diet, predator-prey, fishing, niche overlap</p>	17:15
M: 05 Oral	<p><b>Title:</b> A balanced harvesting strategy to counteract the effect on fisheries yields of reduced body size of organisms in the future ocean</p> <hr/> <p><b>Authors:</b> Paúl Gómez-Canchong and Sergio Neira</p> <hr/> <p><b>Keywords:</b> balanced harvesting, metabolic balance, biomass size spectra, trophic spectra</p>	17:30

M: 06 Oral	<b>Title:</b> Spatial and temporal variation of individual growth of weakfish ( <i>Cynoscion regalis</i> ): A pattern correlates with climate oscillation	17:45
	<b>Authors:</b> Yan Jiao and Rob O'Reilly	
	<b>Keywords:</b> Bayesian, spatial and temporal fish growth, Atlantic weakfish, climate oscillation	
M: 07 Oral	<b>Title:</b> Some like it cold – Consequence of warming seas for the distribution of large bodied fish	18:00
	<b>Authors:</b> Hannes Höffle and Olav Sigurd Kjesbu	
	<b>Keywords:</b> <i>Gadus morhua</i> , thermal window, body size, Barents Sea	
M: 08 Oral	<b>Title:</b> A conceptual framework for diagnosing climate-induced phenotypic changes in body size of fish and projecting future responses	18:15
	<b>Authors:</b> C. Tara Marshall	
	<b>Keywords:</b> climate change, fish growth, temperature-size rule, fisheries yield	
M: 09 Poster	<b>Title:</b> Spatial heterogeneity in size-based change: Understanding the relative effects of fishing and climate on North Sea fish	18:32
	<b>Authors:</b> Abigail Marshall, Grant Bigg, John Pinnegar, Thomas J. Webb, Sonja van Leeuwen, Hua-Liang Wei, and Julia L. Blanchard	
	<b>Keywords:</b> spatio-temporal change, environment, NARMAX, size-based indicators	
M: 10 Poster	<b>Title:</b> Ecosystem models help to understand how phenotypic changes towards small body size and early maturation affect fish population recovery rates	18:34
	<b>Authors:</b> Asta Audzijonyte, Anna Kuparinen and Elizabeth A. Fulton	
	<b>Keywords:</b> body size, ecosystem models, fisheries-induced evolution, stock recovery	
M: 11 Poster	<b>Title:</b> Marine meiofauna from Galician coasts: State of the art and catalogue of species	18:36
	<b>Author:</b> C. Besteiro	
	<b>Keywords:</b> marine meiofauna, catalogue, Galicia	
M: 12 Poster	<b>Title:</b> More, smaller bacteria in response to ocean's warming	18:38
	<b>Authors:</b> X.A.G. Morán, L. Alonso-Sáez, E. Nogueira, H.W. Ducklow, N. González, Á. López-Urrutia, L. Díaz-Pérez, A. Calvo-Díaz, N. Arandia-Gorostidi, and T.M. Huete-Stauffer	
	<b>Keywords:</b> bacterioplankton, time-series, temperature-size relationships, global warming, long-term trends, Atlantic Ocean	
	<b>Discussion</b>	18:45

**TUESDAY 16 SEPTEMBER 2014, 10:30–16:30 – MOD**

M: 13 Oral	<b>Title:</b> Trends in the size of mesozooplankton during the last 25 years at A Coruña (N Spain)	10:30
	<b>Authors:</b> Antonio Bode and M. Teresa Álvarez-Ossorio	
	<b>Keywords:</b> zooplankton, size, upwelling, warming, climate change	

M: 14 Oral	<b>Title:</b> Long-term (1987–2013) dynamics in the winter zooplankton size distribution and species composition obtained from a so far unconsidered data series taken in the southern North Sea	10:45
	<b>Authors:</b> Tim Dudeck, Norbert Rohlf, Christian Möllmann, and Marc Hufnagl	
	<b>Keywords:</b> normalised biomass size-spectrum, zooplankton, Zooscan, long-term timeseries analysis, ecosystem models	
M: 15 Oral	<b>Title:</b> Differential effects of temperature on growth and maturity, may contribute to reduced body size in the ectotherm <i>Haliotis rubra</i>	11:00
	<b>Authors:</b> Fay Helidoniotis, Malcolm Haddon, and Farhan Rizwi	
	<b>Keywords:</b> abalone, Haliotis, southern hemisphere, temperature, maturity, growth	
M: 16 Oral	<b>Title:</b> Changes in maximum body size for male and female red king crab ( <i>Paralithodes camtschaticus</i> ) in Norwegian waters	11:15
	<b>Authors:</b> Ann Merete Hjelset, Jan H. Sundet and Einar M. Nilssen	
	<b>Keywords:</b> Barents Sea, mate choice, maximum age, large male-selective harvest, population structure	
	<b>Discussion</b>	11:30
<b>LUNCH</b>		
M: 17 Oral	<b>Title:</b> Testing the temperature-size rule in marine microorganisms: Effect of experimental warming on the size of major bacterioplankton groups as determined by CARD-FISH	15:00
	<b>Authors:</b> N. Arandia-Gorostidi, T.M. Huete-Stauffer, L. Alonso-Sáez, and X.A.G. Morán	
	<b>Keywords:</b> bacterioplankton, phylogenetic groups, Sar11, temperature-size relationships, global warming	
M: 18 Oral	<b>Title:</b> Exploring the temperature-driven size reduction of marine bacteria over an annual cycle	15:15
	<b>Authors:</b> T.M. Huete-Stauffer, N. Arandia-Gorstidi, and X.A.G. Morán	
	<b>Keywords:</b> bacterioplankton, HNA, LNA, temperature-size relationships, global warming, flow cytometry	
M: 19 Oral	<b>Title:</b> Biogeochemical shifts in a coastal upwelling area (NE Atlantic) do not lead to downsizing in phytoplankton species despite altering the structure of the community	15:30
	<b>Authors:</b> Jaime Otero, Antonio Bode, Xosé Antón Álvarez-Salgado, and Manuel Varela	
	<b>Keywords:</b> upwelling, nutrients, primary production, phytoplankton, community changes, body size, NE Atlantic	
M: 20 Oral	<b>Title:</b> The relative importance of intraspecific and interspecific effects to temperature-size relationships in diatom communities	15:45
	<b>Authors:</b> G. Adams, D. Pichler, E. Cox, E. O'Gorman, A. Seeney, G. Woodward and D. Reuman	
	<b>Keywords:</b> Bergmann's rule, climate change, community size structure, diatoms, global warming, James' rule, phytobenthos, phytoplankton, temperature-size relationships	
M: 21 Oral	<b>Title:</b> Microbial plankton size matters for mussels	16:00
	<b>Authors:</b> F.G. Figueiras, C.G. Castro, M. Froján, U. Labarta, M.J. Fernández-Reiriz, D. Zúñiga, B. Arbones, I. G. Teixeira, and F. Alonso-Pérez	

	<b>Keywords:</b> microplankton, upwelling mussel growth, global warming	
M: 22 Oral	<b>Title:</b> Shift in phytoplankton size structure and trophic status of the upwelling system Ría de Vigo (NW Iberia) due to mussel farming	16:15
	<b>Authors:</b> María Froján, B. Arbones, F. Alonso-Pérez, D. Zúñiga, F.G. Figueiras, C.G. Castro	
	<b>Keywords:</b> phytoplankton size-structure, trophic status, upwelling, primary production, mussel farming.	
	<b>End of session</b>	16:30