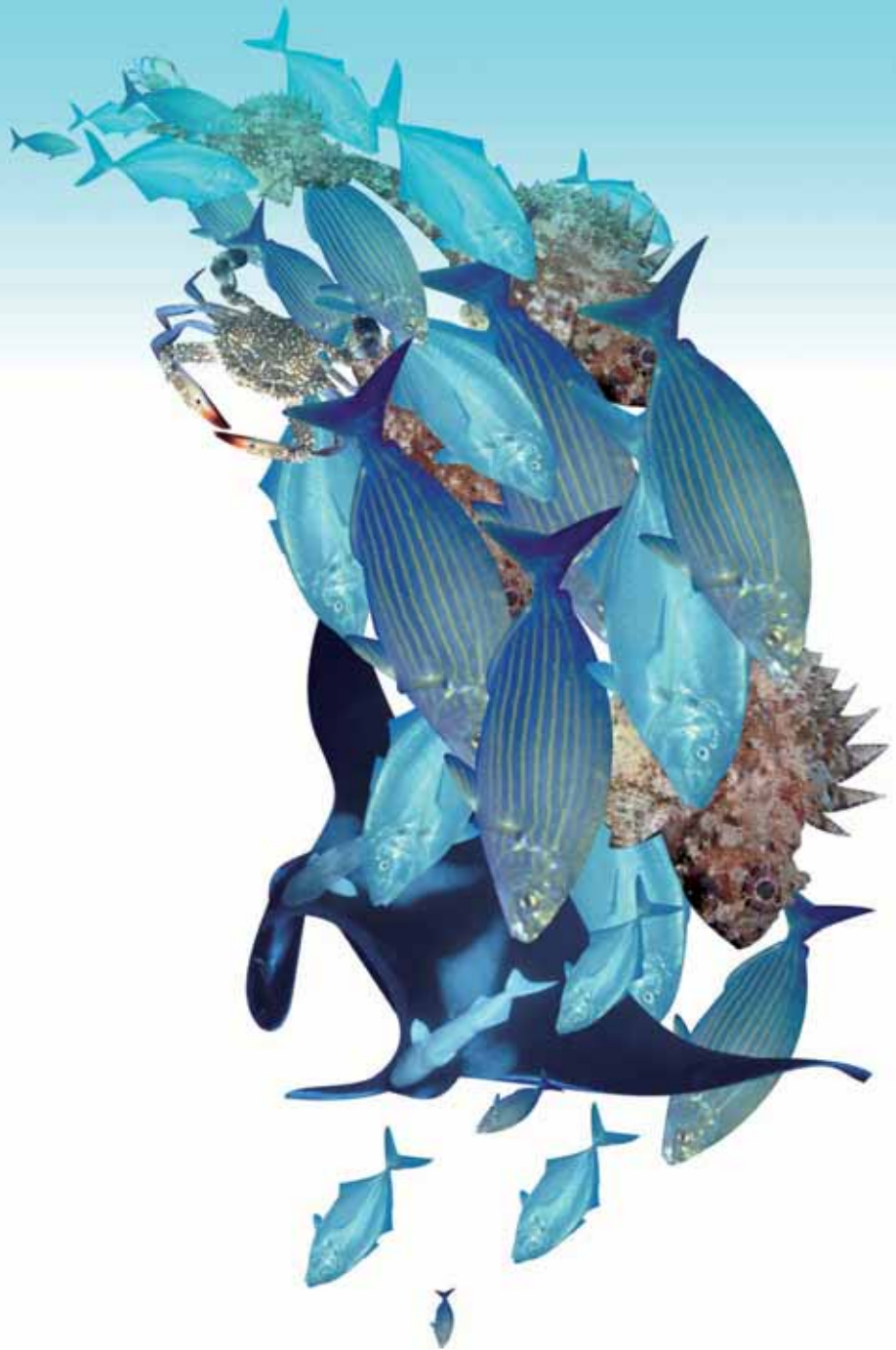


# World Conference on Marine Biodiversity.

11 - 15 November 2008  
Valencia Spain  
City of Arts and Sciences



## **"World Conference on Marine Biodiversity. Program Book"**

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# 1 - Letter of the Chairs

Dear Participants,

Organizing a meeting, let alone a World Conference, for the first time, is always a bit tricky. The audience is unknown, the interest of the topic, the quality of the science and the societal relevance a matter of speculation. When we first discussed the idea within the EU network of excellence MarBEF (Marine Biodiversity and Ecosystem Functioning) there was considerable hesitation. Recent studies have shown that marine biodiversity research amounts to 10 % of global biodiversity research, so questions arose: Is there enough good science? Recent reviews of the literature on the subject had shown that it is a slowly growing field with low numbers of published work and citations. Is it relevant enough? Biodiversity seemed to go through a dip in political interest two years ago, when the world became so much focused on climate change. Would a European program be able to attract international attention?

The answer to all these questions has been overwhelmingly yes. When we discussed the logistics for this conference, we estimated that at best about 300 scientists would register in such conference. Now we realize that we might have attracted nearly 1000 scientists if no limit to the number of participants, due to the limitations of space at the venue, would have been fixed. We realize very well that this has caused problems, including delays in composing the program and frustration amongst the many colleagues have not been able to participate, much to our regret. But it shows that the interest in the subject is great and worldwide and that there is a large scientific community whose needs to meet and present and discuss recent results on marine biodiversity is not served by existing meetings and programs. The present meeting at Valencia may well be the beginning of a new surge in marine biodiversity research and its applications in marine management and conservation.

We still have a long way to go. When MarBEF was granted support from the European Commission five years ago, one of the arguments was that the whole of marine conservation was based on paradigms from terrestrial ecology and socio-economics, perhaps with fisheries biology and management as the only exception. Over these five years many new insights have developed, but still not enough is known to change the base for marine management and the sustainable use of marine biodiversity to rest on fundamentals of marine ecosystems. The effort devoted to come to better grips with marine ecosystems is clearly still insufficient, and one of the goals of this conference must be to show this.

The large participation and the diversity of subjects that are dealt with during this meeting is to a large degree also a result of the active cooperation and involvement of the community at two levels, (1) through large international programs and organizations involved with different aspects of marine biodiversity: the Census of Marine Life CoML and its European component EuroCoML, the Scientific Committees on Oceanic Research SCOR and Antarctic Research SCAR, UNESCO, its International Oceanographic Commission IOC and its Man and Biosphere Programme MAB, the International Council for the Exploration of the Sea ICES and the Conseil International pour l'Exploration Scientifique de la Méditerranée CIESM and from Europe the European Commission, the European Science Foundation with its Eurodeep Programme, the European Environmental Agency EEA, MARS, the European Network of Marine Institutes and Stations and of course MarBEF itself, which mobilised their participants and actively participated in the development of the scientific program and through their contributions with funding and materials; and (2) the enthusiasm and vision of the session chairs, all of whom proposed key, timely topics and actively engaged scientists in presenting the best of their results at these sessions. To all of them, thanks. We must also acknowledge the direct contribution of the European Commission in providing a number of grants to support participants from developing countries helping make this event the global gathering of marine biodiversity researchers we envisaged.

We believe that all of the participants will find the venue, the Ciudad de las Artes y las Ciencias (CAC), with its magnificent architecture and the "Oceanographic" Aquarium and the Príncipe Felipe Museum of Sciences facilities, an exciting platform to present results, discuss and visit. We are most grateful to the managers and staff at the CAC for their hospitality and restless efforts to ensure that the event will be a success. We wish to thank, in particular, Paco Torner and Pilar González-Vallarino, from Oceanographic, for their enthusiasm and hard work in making this happen. The members of the local organizing committee worked hard to plan for a smooth running of the conference and to seed the week with an exciting number of side events. We must also thank the staff at the conference Secretariat, Dr. Moira Llabrés, Dr. Iris Hendriks, Dr. Ward Appeltants, Dr. Pim van Avesaath and Guiomar Duarte who were able to handle, not without struggles and turbulences, the tsunami of registrations we received and help many from developing countries to attend. Dr. Hartmut Barth, at the European Commission, Camen Guerrero, Belén Macías and M<sup>o</sup> Angeles Alastuey, at CSIC, helped us convey the results to be presented to society through the media and other outlets. Many others helped organize this conference, and to them we are grateful. Most importantly, we thank all of you, dear participants, because it is you who will make the success of this meeting.

We can only hope that Valencia will be only the beginning of a new surge in marine biodiversity research and its relevance to addressing the growing problems of biodiversity loss and conservation in the marine environment, ninety percent of the biosphere of our planet.

Carlo Heip, MarBEF and Carlos Duarte, CSIC  
Conference co-Chairs

## 2- Organizing Committee

### International Scientific Committee

Carlo Heip (co-chair)  
Carlos M. Duarte (co-chair)  
Fred Buchholz (MarBEF and MARS)  
Doris Schiedek (MarBEF)  
Dave Paterson (MarBEF)  
Poul Holm (MarBEF)  
Hartmut Barth (EC DG Research)  
Frédéric Briand (CIESM)  
Jake Rice (ICES)  
Antje Boetius (DIVERSITAS)  
Eva Gelabert (EEA)  
Ad Huiskes (SCAR)  
Ed Urban (SCOR)  
Fred Grassle (CoML)  
Graham Shimmield (EuroComl)  
Niamh Connolly (Marine Board - ESF)  
Inge Jonkcheere (EuroDeep - ESF)  
Patricio Bernal (Unesco IOC)  
Salvatore Arico (Unesco MAB)

### Organizing committee

Carlos M. Duarte (CSIC-UIB)  
Carlo Heip (NIOO/NIOZ)  
Pim Van Avesaath (NIOO/NIOZ)  
Maira Llabrés Comamala (CSIC-UIB)  
Iris Hendriks (CSIC-UIB)  
Róisín Nash (EcoServe)  
Ward Appeltans (VLIZ)  
Pablo Areitio Toledo (Ciudad de las Artes y las Ciencias - OCE)  
Francisco Torner Orellana (Ciudad de las Artes y las Ciencias - OCE)

### Local Organization Committee

Carlos M. Duarte (CSIC-UIB)  
Maira Llabrés (CSIC-UIB)  
Iris Hendriks (CSIC-UIB)  
Guiomar Duarte (UIB)  
Eva Ramírez (ICM, CSIC)  
Juan Antonio Raga (Universitat de València)  
M. Ángeles Alastuey Sánchez (CSIC)  
Pablo Areitio Toledo (Ciudad de las Artes y las Ciencias - OCE)  
Francisco Torner Orellana (Ciudad de las Artes y las Ciencias - OCE)  
Marta Gardey (Ciudad de las Artes y de las Ciencias)  
Marta Giménez (Ciudad de las Artes y las Ciencias - OCE)  
Inés Barona (Ciudad de las Artes y las Ciencias - MUS / HEM)  
Pilar González-Vallarino (Ciudad de las Artes y las Ciencias - OCE)

### Outreach committee

Róisín Nash (EcoServe, outreach@marbef.org)  
M. Angeles Alastuey (CSIC, malastuey@dicv.csic.es)  
Belén Macías (CSIC)  
Carmen Guerrero (CSIC).

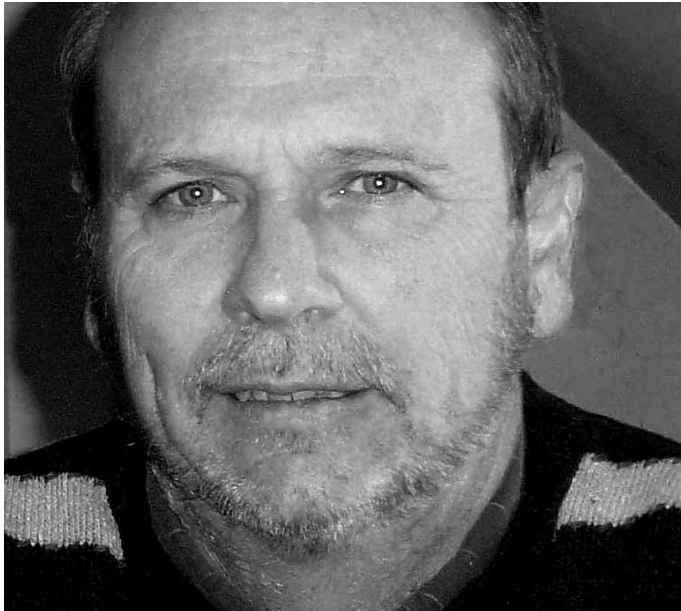
# 3 Introduction of Plenary Speakers

Tuesday November 11

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11:00 – 11:30

## Marine Biodiversity and Ecosystem Functioning: Loose Connection or Essential Link?



**Carlo Heip**

Royal Netherlands Institute of Sea Research and Netherlands Institute of Ecology

The literature on biodiversity and ecosystem functioning shows a large discrepancy between terrestrial and marine efforts. Less than one hundred papers have appeared till now that cover the topic specifically. The relationship between marine biodiversity and ecosystem functioning is therefore still highly speculative. One reason is that major ecosystem processes are executed by microbial organisms, many of which remain unknown. Only in a limited number of cases can these processes be attributed to species (or OTU's). Knowledge at higher taxonomic levels is often not sufficient to elucidate the relationships and lacks as well for certain groups. The specific traits that are susceptible to natural selection and determine the role of species in their environment are only known for a few, well studied species. Only in coastal environments a number of experimental and observational studies have been made that are based on knowledge of such traits.

Not enough is known about the resilience of oceanic and coastal ecosystems to changes. Management of marine resources will require that these relationships get properly understood and quantified. Climate change and acidification are affecting the world's oceans and their resources on an unprecedented scale. The rate of biodiversity change is also increasing rapidly. Ecosystem structure, even at the global scale, is now being changed through human activity affecting top predators and long-lived species in general. Changing species distributions caused indirectly by e.g. temperature rise or changes in current patterns will also affect ecosystem functioning. Some of these changes, such as species invasions, are hardly predictable at all. Adequate management therefore requires adequate monitoring of the marine environment.

Lack of knowledge on the right spatial and temporal scales of biodiversity changes was one of the drivers for the development of the EU network of excellence MarBEF (Marine Biodiversity and Ecosystem Functioning). The project has helped in organizing the European scientific community to address questions of biodiversity change at these scales.

Carlo Heip (1945, Belgian citizen) is a marine biologist, presently director of the Royal Netherlands Institute for Sea Research and of the Centre for Estuarine and Marine Ecology (Netherlands Institute of Ecology) and professor at the universities of Gent (Belgium) and Groningen (The Netherlands). His early research in the seventies and eighties was on population dynamics, ecology and ecotoxicology, and pollution monitoring of benthic (bottom-dwelling) marine communities. Since the mid nineties his interest focused on the link between benthic biology and biogeochemical cycles where he promoted using mesocosm experiments, ecological modelling and stable isotope analysis main tools. A main research topic recently has been the link between biodiversity and ecosystem functioning.

He has over 100 papers in peer-reviewed journals and edited six books. He was responsible for many EU-sponsored projects and initiated or co-started more than ten major European projects including JEEP (the Joint European Estuarine Programme), ELOISE (European Land-Ocean Interaction Studies), OMEX (Ocean Margin Exchange), ECOFLAT (Ecology of Tidal Flats) and most recently EURODEEP (ESF Eurocores programme). During his presidency of the European Marine Research Stations MARS network, he has been active in creating a marine biodiversity research programme for Europe through projects sponsored by the European Science Foundation and by the 5th and 6th Framework Programme of the European Commission (BIOPLAT-FORM, BIOSTRAT, BIOMARE and MARBENA). He is now general co-ordinator of the EU Network of Excellence MARBEF (Marine Biodiversity and Ecosystem Functioning), grouping more than 90 institutes and 700 scientists in Europe.

Carlo Heip is member of the steering and advisory committees of many European institutes and projects (including the running IP's and NoE's EurOCEANS, HERMES, SESAME, EDIT and EN-CORA), and internationally in the International Steering Committees of IMOSEB, the DIVERSITAS programme, the Census of Marine Life and its European branch EuroComl, and SCOPE. For more details see <http://www.nioo.knaw.nl/ppages/cheip/>.

9:00 – 9:30 **Chaos and the Plankton Paradox**



**Jef Huisman**

Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, The Netherlands; e-mail: j.huisman@uva.nl

Biodiversity has both fascinated and puzzled biologists. In aquatic ecosystems, the biodiversity of the plankton has been particularly puzzling, and is known as the 'paradox of the plankton'. How can we explain the biodiversity of tropical rainforests and coral reefs, if we do not understand the coexistence of dozens of plankton species in a droplet of water? One possible solution for the unexpected biodiversity of the plankton is offered by the 'chaos and biodiversity hypothesis' (Huisman and Weissing Nature 1999). This hypothesis argues that plankton communities never settle at equilibrium, but are in a permanent state of change driven by the complex dynamics generated by multispecies interactions. These nonequilibrium dynamics create continuous shifts and changes in species composition, that enable the coexistence of many species on a few limiting resources. In this presentation, I will discuss recent experimental advances in support of the chaos and biodiversity hypothesis (Becks et al. Nature 2005; Benincà et al. Nature 2008). The findings offer a solution for the paradox of the plankton, and may be broadly applicable to the biodiversity of other ecosystems as well.

Jef Huisman (1968) combines mathematical theory, laboratory experiments and field research to gain a better understanding of the species composition in natural communities. His primary research focuses on the plankton communities of freshwater and marine ecosystems. He published more than 70 papers, including several publications in *Nature* and *Science*, on chaos and biodiversity, competition for nutrient and light, the role of turbulence in plankton dynamics, harmful algal blooms, and the colorful niches of phototrophic microorganisms. He served in the editorial boards of *Ecology* and *The American Naturalist*, and is series editor of the *Aquatic Ecology Series* of Springer. Jef Huisman studied Biology at the University of Groningen (Netherlands), where he received his PhD with highest honors in 1997. He was postdoc at Stanford University (USA) and at the Netherlands Institute of Ecology. Since 2002, Jef Huisman holds a chair as Full Professor in Aquatic Microbial Ecology at the Institute for Biodiversity and Ecosystem Dynamics of the University of Amsterdam (Netherlands). His scientific contributions were recognized by awards from the international Ecology Institute and the American Society of Naturalists.

9:30 – 10:00 **Documenting marine megadiversity: From cottage industry to factory assembly line**



**Philippe Bouchet**

Museum National d'Histoire Naturelle, Paris, France.

Entomologists started the game of 7-digits biodiversity numbers. Microbiologists have gone "all-molecular" and are starting to reveal mind boggling numbers of marine species. Deep-sea biology has traditionally been big science and the deep benthos is still considered a frontier in biodiversity exploration. However, while coral reefs are portrayed as the rain forests of the sea, our approach to documenting and describing tropical coastal biodiversity remains small-scale and low-tech. In addition, species-rich and poorly known taxa are «carefully» avoided during most coral reefs conservation surveys because of problems with sampling, sorting and identifying them. With one-fourth of all described marine biota, molluscs are the beetles of the sea. It is estimated that we currently know 80,000 valid described mollusc species (53,000 marine), with a yearly increment of about 580 species (350 marine). Recent efforts carried out in New Caledonia, the Philippines and Vanuatu combined the best of naturalist approaches (intimate knowledge of niches and the intuition of where to find things) and the strike force of assembly line teams dedicated to bulk sampling, sorting, digital imaging, and molecular sampling. With up to 2,000 day-persons per site, these massive surveys have revealed levels of species richness previously undocumented and unsuspected anywhere in the world. In an area of about 15,000 hectares, the Panglao Marine Biodiversity Survey inventoried on the order of 1,600 species of decapod crustaceans and 5-6,000 species of mollusks. Twenty per cent of the mollusc species are represented by single specimens that together make up only 0.4% of all catches. One-third of the species have adult sizes under 4 mm, while only 10% are larger than 40 mm. Such a fractal composition of the species guild is shared by insects in the canopy of rainforests. "Keystone" species, "indicator" species, and other "flagship" species may be adequate for biodiversity studies that focus on ecosystem function and habitat conservation, but they do not address one apparently fundamental property of complex tropical ecosystems: most species are rare, small, and... unnamed.

Philippe Bouchet is senior professor at the French National Museum of Natural History, in Paris. He is active in his museum's visiting curators programmes, and in several European Union programmes to produce continent-wide authority lists. He also serves as a member of the International Commission on Zoological Nomenclature. Philippe Bouchet's interests are with the exploration and description of biodiversity, especially marine invertebrates. His research on vertical migrations of gastropod larvae between the abyss and the surface awarded him the 2001 Marine Sciences Prize of the French Academy of Sciences. Exploring for unknown faunas has taken him to expeditions in three oceans, as well as to a number of remote islands, with emphasis on the western Pacific, where he has coordinated several major international expeditions that have become the gold standard of biodiversity surveys. Bouchet's recent work focusses on species richness in complex tropical coastal environments, addressing issues such as rarity, spatial heterogeneity and endemism. Bouchet believes in solid taxonomical work. He has authored major monographs and described over 400 new species of molluscs. He is also editor of several volumes in the *Tropical Deep-Sea Benthos* series.

9:00 – 9:30

**Human impacts on coastal and shelf ecosystems:  
small scale fisheries as a problem and a solution**



**Daniel Pauly**

The Sea Around Us Project, Fisheries Centre, University of British Columbia,  
2202 Main Mall, Vancouver, BC V6T 1Z4 Canada; Email: d.pauly@fisheries.ubc.ca

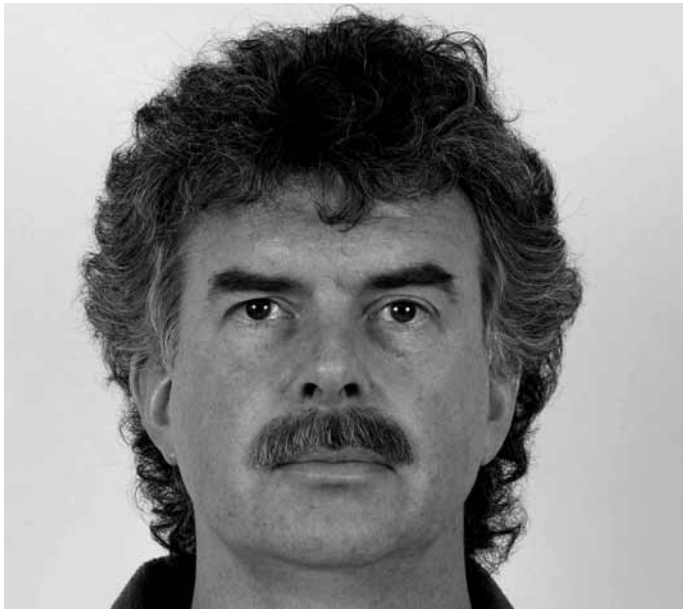
Humans have become a major geological and hydrological force, as can be seen on the terrestrial side of coastal areas and deeper inland, where agriculture and other human activities have deeply modified terrestrial ecosystems, and reduced their biodiversity. Marine ecosystems and their biodiversity are also strongly impacted, particularly coastal waters and adjacent shelves. Most of these impacts are generated, or at least aggravated, by coastal fisheries. Thus, the historic catches of the mainly small-scale fisheries exploiting coastal zones should provide a measure of the impact these very fisheries are having. However, small-scale fisheries catches are not, or very badly, covered in the catch statistics of most countries, and literally disappear in international fisheries statistics.

This can be remedied by a deliberate program of historic reconstruction such as conducted by the Sea Around Us Project. Results so far indicate that the catches of artisanal fisheries are much higher than is commonly assumed, though, in many cases, they have declined in the past few decades. Most of the declines appear to have been due to overfishing of inshore waters, aggravated by competition between small-scale and industrial fisheries. Also, these fisheries now rely on a different array of species, indicating that coastal species diversity has also been affected, and not only their abundance.

The catch reconstruction process involve a wide range of resources (books, grey literature, online databases, etc.) and disciplines (fisheries science, rural economics, maritime anthropology, etc.) and thus serve as focal point for a consilient approach to both fisheries, and the biodiversity they depend on, and threaten. These reconstructions may also help in re-conceptualizing small-scale coastal fisheries from the marginal activities that they now are, to a revitalized sector, compatible with the maintenance of coastal biodiversity, and, via exclusive access privilege, free from the burden of competition with fuel- and subsidy-guzzling industrial fisheries.

Daniel Pauly is a French citizen who completed his high school and university studies in Germany; his doctorate (1979) is in Fisheries Biology, from the University of Kiel. After many years at the International Center for Living Aquatic Resources Management (ICLARM), in Manila, Philippines, Daniel Pauly became in 1994 Professor at the Fisheries Centre of the University of British Columbia, Vancouver, Canada, and in 2003, its Director. Since 1999, he is also Principal Investigator of the Sea Around Us Project (see [www.seaaroundus.org](http://www.seaaroundus.org)), funded by the Pew Charitable Trusts, Philadelphia, and devoted to studying, documenting and promoting policies to mitigate the impact of fisheries on the world's marine ecosystems (see *AMBIO*, 34: 290-295, 2007). The concepts, methods and software Daniel Pauly (co-)developed, documented in over 500 publications, are used throughout the world – especially the Ecopath modeling approach and software ([www.ecopath.org](http://www.ecopath.org)) and FishBase, the online encyclopedia of fishes ([www.fishbase.org](http://www.fishbase.org)). This work is recognized in various profiles, notably *Science*, April, 2002; *Nature*, Jan. 2003; *New York Times*, Jan, 2003, and by numerous awards, among them the International Cosmos Prize, Japan (2005), the Volvo Environmental Prize, Sweden (2006), the Excellence in Ecology Prize, Germany (2007) and the Ramon Margalef Prize in Ecology, Spain (2008).

9:30 – 10:00



**Mark J. Costello**

Leigh Marine Laboratory, University of Auckland, New Zealand and EcoServe, Dublin, Ireland.  
[m.costello@auckland.ac.nz](mailto:m.costello@auckland.ac.nz)

At the present rate of species extinctions and discovery, hundreds of thousands of species may become extinct before they are known. If only one-fifth of species have been described to date, it will take 700 years to name all species under a 'business as usual' scenario. However, improved efficiencies in taxonomy can be achieved using new technologies, notably through online information systems managed by the scientific community. Marine taxonomists are providing a world-leading example of such an open-access activity in the World Register of Marine Species (WoRMS) at [www.marinespecies.org](http://www.marinespecies.org) supported by the Flanders Marine Institute and over 160 Taxonomic Editors. This presentation first outlines how such technology supported collaboration may synergise effort so as to describe most species by the end of this century. Then it explores what we know, do not know, but could know, about marine biodiversity. The most easily understood measure of nature's diversity is captured in the popular question of how many species exist. Because no human activity or business operates without an inventory of its primary resources and metrics of knowledge, and the Linnaean process of naming species has been well established for 250 years, it is a surprise to many that biologists have not inventoried what species they have described. Because almost all phyla and classes of life occur in the oceans, knowing marine species diversity is a critical step in assembling the evolutionary diversity of life on earth. Recent estimates of how many marine species have been named range from 150,000 to 274,000, and how many exist range from 10 million to 5 million to 0.5 million. This presentation will summarise the limitations of the methods used to estimate marine species richness. The best solution is for taxonomic experts to inventory species (as distinct from names), and this is being achieved through WoRMS. Using the proportions of undescribed species in samples may provide a better estimate of how many species remain to be described, and they suggest a little over 1 million species may exist. The latest counts of how many species have been named, and estimates of those remaining will be presented.

Mark J. Costello (BSc Galway, PhD Cork) is an Associate Professor at the University of Auckland, New Zealand. Previous positions were Executive Director of the Huntsman Marine Science Centre, Canada; Managing Director of EcoServe (Ecological Consultancy Services Ltd), Ireland; lecturer in environmental sciences at Trinity College, Dublin, and post-doctoral fellowships in ecotoxicology and fish ecology at Aberdeen, Edinburgh and Plymouth. He has about 200 publications, including 80 peer-reviewed papers, had over 40 invitations to speak at scientific meetings, and supervised over 30 graduate students. Current research interests include marine biodiversity and biogeography, biodiversity informatics, sea lice parasites, and marine reserves. He has leading roles in the World and European Registers of Marine Species, Society for the Management of Electronic Biodiversity Data, International Association of Biological Oceanography, Ocean Biogeographic Information System, Marine Research Information Network on Biodiversity (MARINE-B) email list, and is involved in the Group of Earth Observations Biodiversity Observation Network, Diversitas, Census of Marine Life, Encyclopaedia of Life, and Global Biodiversity Information Facility.

9:00 – 9:30 **Add-on Inshore Marine Biodiversity Enhancement Via Territorial User Rights for Fisheries Allocations**



**Juan Carlos Castilla, Stefan Gelcich and Miriam Fernández.** Departamento de Ecología and LINGlobal. Facultad de Ciencias Biológicas. Pontificia Universidad Católica de Chile. Casilla 114-D. Santiago, Chile, [jcastilla@bio.puc.cl](mailto:jcastilla@bio.puc.cl)

Oceans are becoming degraded and evidences show that marine ecosystem services, ranging from biodiversity and aesthetics to the sustainable use of resources and protection of livelihoods are in deputy. Marine fisheries and conservation of biodiversity and ecosystems, based on open access and top-down or centralized governments approaches have failed. Fully Marine Protected Areas (no-take MPAs), particularly in inshore coastal zones, have been created as a way to protect ecosystem functions and to help in the recuperation, maintenance and enhancement of biodiversity and resources. Also to serve cross-boundary seeding subsidies and allow for overspilling to adjacent areas. While, these areas may be an important part of the marine conservation /management toolkit, there are many other alternative and complementary tools. Here, we present results showing coastal inshore biodiversity enhancement, from one of the best proven and socially acceptable tools to scale up coastal sustainable management /conservation: the allocation to communities of "Territorial Fishery User Rights for Fisheries" (TURFs), particularly for the management of benthic resources. The rationale behind TURFs is based on a common property approach which assumes that property user fishery rights will create institutional incentives: empowerment of fisher and local communities, so to promote the rational use of resources and conservation (biodiversity included). In Chile, a coastal TURFs policy, the so called "Management and Exploitation Areas for Benthic Resources" (MEABRs), was legally implemented in 1991. Ten to fifteen years later and following the establishment of over 300 MEABRs along Chile (covering over 1000 km<sup>2</sup>), the policy has been proclaimed as a management and economic success. Additionally, we have shown that well cared MEABRs in Central Chile, exhibit also biodiversity benefits. In fact, MEABRs, which in practice restricts access to the entire assigned area, provide add-on biodiversity enhancement for subtidal and intertidal species that are not part of the management policy, for instance for rocky fish species. We suggest that marine biodiversity conservation will be significantly enhanced if a mix of conservation/management tools are implemented along a spatial network, importantly including areas of restricted access via strengthening and empower local communities and the implementation of new governance strategies (i.e., co-management), including local traditional knowledge. Measures and practices to conserve and enhance marine biodiversity, ecosystems and ecological processes must take humans (users) needs seriously into account. This is the case particularly in the developing world, where most of the marine biodiversity hot-spots are located and where what we scientists call: "biodiversity", for the people implies "livelihood".

Juan Carlos Castilla is professor at the Pontificious Catholic University of Chile and Director of the International Laboratory for Global Change (CSIC, Spain –PUC, Chile). One of the main lines of research of Juan Carlos Castilla refers to the structure and dynamics of rocky intertidal and nearshore systems and the key ecological role played by humans. He has been interested in the establishment of Marine Parks and Preserves in Chile and Latin America and additionally in coastal management regarding littoral resources via the implementation of Territorial User Rights for Fisheries (TURFs) in Chile Management and Exploitation Areas for Benthic Resources (MEABRs). The connections between Marine Conservation, Management and Biodiversity are of special interest to him. Coastal Oceanography and larval transport are complementary lines of research. Recently, he has been working on Global Changes, with a special focus on marine systems. The socialization of the Science of Global Changes is becoming a new line of research. Prof. Castilla has published over 200 hundred papers in international journals, and has been recognized as a Fellow of the National Academy of Science of the US and the 2006 FBBVA award of Ecology and Biodiversity Conservation, among other distinctions.

9:30 – 10:00 **Socio-economic costs and benefits of marine biodiversity protection**



**Rudolf de Groot**  
Environmental Systems Analysis Group  
Wageningen University

The world's oceans are in trouble. Global fish catches are declining, numerous populations of marine animals have collapsed, and communities and habitats have been extensively damaged or destroyed.

With the loss, and disturbance, of marine biodiversity also the associated goods and services are impaired: the primary food source and livelihood of millions of people is at stake and many regulating services (eg. influence of marine biodiversity on biological and climate control, waste-treatment and storm-protection) are disturbed.

Evidence is mounting that marine protected areas (MPAs), where fishing and other human activities are restricted or prohibited, not only protect marine biodiversity but also sustain or increase yield of nearby fisheries and enhance the provision of ecosystem services.

It is calculated that effective protection of 20-30% of the world's seas and coastal systems would cost between 5-19 billion US\$/year but will generate benefits many times that amount. Current global expenditures on supporting (non-sustainable) marine fisheries are estimated between 15 and 30 billion US\$/year. This sum would clearly be better invested in creating and maintaining a global network of Marine Protected Areas which would not only maintain marine biodiversity for future generations but also create over 1 million jobs in managing the protected areas and the economic activities associated with the restored and enhanced ecosystem services.

Rudolf de Groot is Associate Professor on Integrated Ecosystem Assessment & Management with the Environmental Systems Analysis Group of Wageningen University ([www.esa.wur.nl/uk](http://www.esa.wur.nl/uk)). From 1999-2004 he also worked at the International Centre for Integrative Studies (ICIS), Univ. of Maastricht where he was leader of the program on Environment-Economy interactions. He is a landscape-ecologist by training (MSc-Biology/Ecology, Utrecht Univ.-Cum Laude) and holds a PhD in Environmental Sciences (Wageningen University) on the topic of ecological-economic analysis of ecosystem functions and values as a tool in regional planning and management. De Groot was and is involved as project leader in many international research projects and programs dealing with interactions between climate change, land use (change) and ecosystem services. Currently, he leads the Wageningen Research Program on Ecosystem & Landscape Services ([www.ecosystems-services.nl](http://www.ecosystems-services.nl)) and is partner in an EU funded project on Impact Assessment of European Policies on Multi-functional Land Use ([www.sensor-ip.org](http://www.sensor-ip.org)) and several other projects. He is a member of several national and international organisations and advisory bodies, including the Steering Committee of the IUCN Commission on Ecosystem Management (CEM) ([www.iucn.org/themes/ceem](http://www.iucn.org/themes/ceem)) as Global Theme leader on Ecosystem Services. In 2005 he founded the Nature Valuation and Financing Network ([www.naturevaluation.org](http://www.naturevaluation.org)), one of the activities of the Foundation for Sustainable Development ([www.fsd.nl](http://www.fsd.nl)) of which he is the founder and chairperson.. He published over 100 scientific papers, including 2 books and was one of the coordinating lead authors in the Millennium Ecosystem Assessment ([www.MAweb.org](http://www.MAweb.org)). He is a member of the Editorial Board of several Journals, including "Regional Environmental Change" (Springer) and "Biodiversity Science and Management" (Sapiens Publ.), and "Conservation Letters" (Wiley-Blackwell Publ.).

9:00 – 9:30

### Role of Secondary Metabolites in Marine Biodiversity and Ecosystem Functioning



**Adrianna Ianora**

Stazione Zoologica Anton Dohrn  
Villa Comunale 80121 Naples, Italy  
Plenary Session

Much attention has focused recently on the potential consequences due to biodiversity loss in the oceans such as the decline of populations and species, catches of wild fish, water quality and other costly losses. Another loss which is rarely considered is that of secondary metabolite production in marine organisms, and the complex indirect effects of shifts in metabolite production on the maintenance of marine biodiversity at the genetic, species and ecosystem levels. This presentation will consider some of these effects by showing how secondary metabolites play fundamental roles as defences against predators, competitors and pathogens, thereby promoting maintenance of biodiversity and ecosystem functioning through resource and habitat partitioning. Some examples of metabolite-production shifts are well known, such as the chemically mediated effects of toxic algal blooms, including fish kills and the death of many aquatic birds and mammals, resulting in considerable loss of seafood and fisheries revenues. Other examples of the toxic effects of plant metabolites are less dramatic but nonetheless insidious, occurring through abortions, birth defects, poor development rates, and high mortality, deterring future generations of potential predators and altering ecosystem functionality and trophic relationships. Many of these compounds find important biotechnological applications in biomedical research, and in the aquaculture and chemical industries. However, our ability to assess the biomedical potential and sustainability of marine drugs is inevitably coupled to our understanding of the biology and ecology of the producing organisms. An increased understanding of the natural function of these compounds will shed light on the role of secondary metabolites in structuring marine communities, allowing for the development of new strategies for the correct management and protection of these potentially important natural resources for the future.

Adrianna Ianora is senior researcher (Dirigente di Ricerca) in the Functional and Evolutionary Biology Laboratory at the Stazione Zoologica Anton Dohrn, Naples, Italy. She is a member of the editorial board of several scientific journals and vice-chair of the EU network of excellence MarBEF and member of the executive board of the European Network of Marine Research Institutes and Stations MARS. She has 68 scientific publications in peer-reviewed journals and 40 in non-peer reviewed journals. She is co-editor of three books on Antarctic ecosystems.

Her research interests are in the areas of microalgal chemical ecology and copepod ecology, reproduction, development, nutrition and physiology. Her laboratory is particularly interested in employing an integrative approach to study plant-herbivore and predator-prey interactions in marine planktonic communities, and on understanding the role of chemical defences in mediating biotic interactions. Currently her research team is studying the effects of phytoplankton chemical defences, such as polyunsaturated aldehydes and other oxylipins produced by several toxic diatom species, on copepod consumer fitness and is screening for the presence of new anti-proliferative compounds in dinoflagellates and other microalgal groups.

9:30 – 10:00

### Future challenges in discovering the diversity of seafloor life



**Antje Boetius, Dirk de Beer, Nicole Dubilier, Alban Ramette, Frank Wenzhöfer**  
Max Planck Institute for Marine Microbiology

The seabed is a diverse environment that comprises as different habitats as the desert-like deep seafloor to the rich oases that are present at seeps, vents, and food falls such as whales, wood or kelp. The development of advanced submarine survey techniques for observing, mapping and sampling the seabed and all of its features, as well as a suite of new molecular methods has enabled scientists to get an increasingly better picture of the diversity of seafloor habitats, communities and species. This presentation describes how different ocean floor habitats provide highly diverse living conditions for benthic communities. It will summarize recent discoveries on the functioning of seafloor life at extreme conditions, and the special role of microorganisms in increasing habitability and biodiversity at depth.

Relevant functions of the highly diverse microbial communities inhabiting the ocean floor include remineralisation, transfer of energy and nutrients, production and destruction of greenhouse gases, CO<sub>2</sub> sequestration, and biological interactions such as symbiosis. Unfortunately, the interconnection between microbial community structure and biodiversity, energy flow, productivity and functionality of ecosystems, remains largely unknown. Here we present several case studies, which show how bacterial communities are structured in different benthic habitats, how they vary with different geochemical parameters, on different temporal and spatial scales, or in conjunction with faunal composition. Also, we provide an outlook on future challenges in biodiversity studies of the ocean floor.

Antje Boetius heads the "Microbial Habitat" research group at the Max Planck Institute for Marine Microbiology and is Professor for Microbiology at Jacobs University Bremen. Her research group studies the physical, chemical, geological, hydrological and biological characteristics of the diverse microbial habitats to understand niche formation. The group combines molecular methods with in situ biogeochemistry to investigate environmental factors explaining the occurrence and distribution of microbial populations. Dr. Boetius personal research interests are in marine biodiversity, microbial ecology of the deep sea, marine methane cycle, gas hydrates and cold seeps, geomicrobiology, and the global carbon cycle. Antje Boetius contributes to several EU and ESF projects dealing with deep water ecosystems and chemosynthetic life as well as to some Census of Marine Life projects. She is editor of a variety of marine biology and biogeochemistry journals and scientific committee member for various national and international institutions dealing with marine life.

## 4- Information on Valencia and events during the WCMB

Valencia (the original Latin name of the city was Valentia, meaning "strength") is the capital of the Spanish autonomous community of Valencia and its province. It is the third largest city in Spain and the 21st largest in the European Union. It forms part of an industrial area on the Costa del Azahar.

The estimated population of the city of Valencia proper was 797,654 as of 2007 official statistics. Population of the metropolitan area (urban area plus satellite towns) was 1,738,690 as of 2007.

Founded by the Romans, Valencia has been the home of many cultures over its history: Romans, Visigoths, Moors and the Aragonese all made the city an important cultural and financial centre.

In the year 1094, Rodrigo Díaz de Vivar, called El Cid Campeador, conquered Valencia on behalf of the Christians, but the city later fell to the Almoravids in 1102. Following the Moorish domination, it was in 1238 that James I of Aragon finally reconquered the city, and founded the Kingdom of Valencia, with its characteristic legislative privileges (Furs).

During the 15th and 16th centuries, Valencia became one of the major economic powers on the Mediterranean seaboard. It was the time of the Valencian *siglo de oro* (Golden Age), which was characterized by splendour in the arts at the hands of Joanot Martorell (author of *Tirant lo Blanc*, the first modern European novel), Ausias March, Roig de Corella, Isabel de Villena, Jordi de Sant Jordi and Jaume Roig, among others.

During the War of Spanish Succession, Valencia sided with archduke Charles of Austria, and after the victory of the Bourbons at the Battle of Almansa (April 1707), Phillip V abolished the local privileges, or *fueros*. In 1874, Alfonso XII was proclaimed constitutional king at Sagunto, north of Valencia.

When democracy was restored, the Land of Valencia was given its present Autonomous Statutes in 1982. The history of the city, now the capital of the Land of Valencia, is both rich and varied, providing a patrimony that has converted it into one of the major cities in Spain on both cultural and economic levels.

For first-time visitors to the city, the top ten tourist attractions are:

**Plaza del Mercado:** Lonja de la Seda, Santos Juanes and Mercado Central  
The Plaza del Mercado is home to 3 buildings of interest, the Silk Market, one of the best examples of gothic civil architecture in Europe which is Patrimony of the Humanity (UNESCO), the Santos Juanes Church in baroque style and the Central Market, a colourful market in a beautiful modernist building.

**La Catedral, El Miguelete and Plaza de la Virgen**

Each of the three gates of the Cathedral has a different style: Irons Gate (baroque), the Apostles Gate (gothic) and the Palace Gate (Romanesque). The bell tower El Miguelete where you can enjoy amazing views. And the Plaza de la Virgen sits on the site that once was the forum of Roman Valencia.

### **Torres de Serranos**

The Serranos Towers are considered to be the largest Gothic city gateway in all of Europe, and were constructed at the end of the 14th century by Pere Balaguer as part of the city's fortification. They provisionally housed prison cells and served as a triumphal arch on many festive occasions.

### **Iglesia de San Juan del Hospital**

San Juan del Hospital is one of the oldest churches in Valencia, built around 1261. The temple has a single nave covered with a pointed barrel vault. Inside, you may contemplate the magnificent chapel of Santa Barbara and others chapels with painted murals from the Gothic period.

### **Museo de Bellas Artes San Pío V**

Located in a Baroque building recently renovated, The Fine Arts Museum San Pío V is one of the most outstanding painting archives in Spain, renowned for its collections of primitive Valencian painters, although there are also works by El Greco, Velázquez, Murillo, Goya, and some archeological pieces.

### **Museo Nacional de Ceramica Gonzalez Marti**

The National Ceramics Museum Gonzalez Marti is housed in a palace that dates from the 15th century and was refurbished in 1740 on rococo style with a magnificent alabaster entrance. Inside, you can find the 19th century rooms and a collection of tiles made in the Royal Ceramics Factory in Alcora.

### **Monasterio de San Miguel de los Reyes**

The Jeronime monastery of San Miguel de los Reyes was erected in the 16th century over the old abbey. The facade is in the Renaissance style and is framed by

two towers with salomonic Baroque columns. The monastery also has two cloisters surrounded by arch galleries.

### **La Ciudad de las Artes y las Ciencias**

The City of Arts and Sciences complex includes four buildings: L'Hemisferic is a Laserium, Planetarium and IMAX cinema, the Science Museum is one of those museums where it is forbidden not to touch, L' Oceanographic is a giant marine park or aquarium and the Palau de les Arts is an Opera House.

### **El Puerto y La Playa**

Valencia hosted the 32nd America's Cup, the international yacht race, in summer 2007. Visit the port and enjoy with the team bases, the house of America's Cup, the superyacht pier and the port sheds. After, walk by the promenade seafroint in the Las Arenas, La Malvarrosa and Alboraya beaches.

### **Jardin Botanico**

The Botanic Garden was founded in 1567 for the study of medicinal plants. In 1802 it was installed in l'Hort de Tramoyeres, where it is currently situated. The restoration that was concluded in the year 2000 allowed for the reclamation of this spectacular green space.

For more information on Valencia and a Schedule of events visit [www.valencia-cityguide.com/](http://www.valencia-cityguide.com/)

### **Restaurants in Valencia**

For detailed information and reviews on restaurants in Valencia please check:

[http://www.virtualtourist.com/travel/Europe/Spain/Comunidad\\_Valenciana/Valencia-251564/Restaurants-Valencia-BR-1.html](http://www.virtualtourist.com/travel/Europe/Spain/Comunidad_Valenciana/Valencia-251564/Restaurants-Valencia-BR-1.html)

<http://www.concierge.com/travelguide/valencia/restaurants> and, <http://www.lonelyplanet.com/worldguide/spain/valencia/where-to-eat>

to view the location of Restaurants around the venue please navigate to "l'Oceanogràfic, 46023, Valencia, Spain" in Google Earth or Maps and then check for restaurants.

Remember that all restaurants within the Oceanografic, except the "Submarino" restaurant will provide a 20% discount to conference participants upon display of the badge.

## 5- Information on the venue (CAC) and events during the WCMB

### **Venue**

The World Conference on Marine Biodiversity will take place in the City of Arts and Sciences of Valencia, a modern complex designed by world-famous architect Santiago de Calatrava ([www.cac.es](http://www.cac.es)). Specifically, the conference will take place in the Red Sea Auditorium, at the Oceanogràfic, a spectacular auditorium with a 30 m by 10 m view to the Red Sea Aquarium in the front at of the largest and more modern Aquaria in Europe ([www.cac.es/oceanografic/home](http://www.cac.es/oceanografic/home)) and the Santiago Grisolia auditorium at the Museo de las Ciencias Príncipe Felipe ([www.cac.es/museu](http://www.cac.es/museu)).

The City of Arts and Sciences is located in a new, vibrant area of Valencia, an active city with both gothic and modernistic monuments worth visiting, and well connected through an international airport to Spanish and European cities.

The venue is within walking distance to a rich network of hotels (official tourism web page: [www.comunitatvalenciana.com](http://www.comunitatvalenciana.com)).

### Address information

Red Sea Auditorium, Oceanográfico  
Santiago Grisolia auditorium, Museo de las Ciencias Príncipe Felipe  
The City of Arts and Sciences  
Avd. Autopista del Saler, nº 1, 3, 5, 7  
C. P. 46013 Valencia

How to get to Valencia: [www.cac.es/cac/informacion/como\\_llegar](http://www.cac.es/cac/informacion/como_llegar).

### The City of Arts and Sciences

The City of Arts and Sciences, a huge complex backed by the Valencia Regional Government, has become an international reference point and symbol of the drive towards cultural tourism and the dynamism with which the Comunidad Valenciana wishes to present itself to the world. A leisure-cultural centre that astonishes with its architecture and its immense capacity for entertaining, teaching and stirring up interest, by promoting public involvement and cultural dissemination.

Open throughout the year from Monday to Sunday, the City of Arts and Sciences of Valencia provides the public with an educational tour of the prodigies of science and research, the latest technologies and nature, music and art: a wide offer that complements the traditional tourism of the Comunidad Valenciana and that attracts millions of visitors every year.

Along an axis of almost two kilometres, in the former riverbed of the River Turia, with a surface area of 350,000 square metres, the City of Arts and Sciences is a great open space, an educational area based on the idea of intelligent and cultural leisure that makes Valencia the largest centre of these characteristics in Europe.

The Mediterranean tradition of sea and light, of blues and whites, combine with state-of-the-art architecture in The City of Arts and Sciences, designed by the Valencian architect Santiago Calatrava and Félix Candela. Leader of one of the most amazing urban transformations in recent years, this complex is today the ultimate example of how culture can transform a city and turn it into the symbol of a community. The bold lines of Hemisfèric (IMAX, Planetarium and Laser), Umbracle (Promenade and Car Park), the Museo de las Ciencias, the Oceanográfico (Aquarium) and the Palacio de las Artes (Opera House) lend personality to the capital of the river Turia in the 21st century. This is the City of Arts and Sciences, the futuristic stamp that symbolises the new Valencia: a modern city within an age-old one, where millions of visitors go every year to immerse themselves in culture and scientific dissemination.

Besides the urban impact, the economic enrichment of the Comunidad Valenciana must also be pointed out, given that this project, of a cultural nature, has generated thousands of jobs, revitalising cruise liner tourism to the city, as well as attracting congresses, - with more than 45,000 participants so far-, all of which has had the corresponding impact on hotel bookings and earnings for the service sector.

In July 2005, the Aquarium and the central services of CAC, the Museo de las Ciencias and Umbracle, received the quality and environmental certifications ISO 9001:2000 and ISO 14001:1996. Hemisfèric, the first of the City of Arts and Sciences' elements, which opened to the public in 1998, was the unit used as the pilot experiment for this project and having successfully passed the audit made by the BVQI in June 2003, both certificates were obtained.

This is the first organisation of these characteristics on a worldwide level to implement an Integrated Management System and obtain that recognition, which provides evidence of the continuous improvement in the management of The City of Arts and Sciences. The fulfilment of these standards guarantees the public who wish to enjoy our services the satisfaction of their needs and expectations, a high level of quality in the services provided and in the attention received, as well as the environmental awareness of all the workers, through the development of good environmental practices, among other things.

The important role played by the architecture has been possible thanks to the work of the two Spanish architects of international prestige, who have delivered here the best of their work: Santiago Calatrava with the Palacio de las Artes

Reina Sofia (Opera House), Hemisfèric (Imax, Planetarium and Laser), the Museo de las Ciencias Príncipe Felipe and Umbracle (Promenade and Car Park) and Félix Candela with the unique roofing structures of the main buildings of the Oceanográfico (Aquarium).

These are the five grand elements that share the aim of cultural promotion and public participation in a futuristic and unique architectural setting, with wide-open spaces for the public:

#### \* Hemisfèric

A unique venue in Spain where three audiovisual shows are projected:

- o Planetarium
- o IMAX DOME cinema
- o Omniscan Laser

#### \* Museo de las Ciencias Príncipe Felipe

This is the great museum of the 21st century for finding out, in an instructive, interactive and entertaining manner, everything related to the evolution of life, science and technology.

#### \* Umbracle

A spectacular gardened promenade and viewing point that houses a huge car park beneath it.

#### \* Oceanográfico

This is the largest aquarium in Europe, capable of hosting 45,000 living creatures of 500 different species, where the main marine ecosystems of the planet are represented.

#### \* Palacio de las Artes Reina Sofia

The grandeur of its architecture together with its full technological equipment makes this one of the world reference points for the most prestigious theatre, opera and music.

To find out more information about Valencia visit the web pages below.

- \* Ayuntamiento de Valencia
- \* Generalitat de Valencia
- \* Instituto Valenciano de Arte Moderno
- \* Turisvalencia
- \* Universitat de València
- \* Instituto de Historia de la Ciencia y Documentación López Piñero (CSIC-Universidad de Valencia)
- \* Universidad Politécnica de Valencia
- \* Valencia, a virtual trip
- \* Red de Museos de la Diputación de Valencia

## 6- List Of hotels Near City Of Arts And Sciences (Valencia)

### 1. Nh Las Artes \*\*\*\*

Avenida Instituto Obrero de Valencia, 26-28, 46013 Valencia (España)  
Phone: +34 963 351 310  
Fax: +34 963 748 622  
E-mail: [nhlasartes@nh-hotels.com](mailto:nhlasartes@nh-hotels.com)  
Web page: [www.nh-hotels.com/nh/es/hoteles/espana/valencia/nh-las-artes.html](http://www.nh-hotels.com/nh/es/hoteles/espana/valencia/nh-las-artes.html)

### 2. Nh Express Las Artes \*\*\*

Avenida Instituto Obrero de Valencia, 26-28, 46013 Valencia (Spain)  
Phone: +34 963 356 062  
Fax: +34 963 334 683  
E-mail: [exlasartes@nh-hotels.com](mailto:exlasartes@nh-hotels.com)  
Web page: [www.nhhotelesdirectorio.com/hoteles/nh\\_express\\_las\\_\\_artes.htm](http://www.nhhotelesdirectorio.com/hoteles/nh_express_las__artes.htm)

### 3. Tryp Oceanic \*\*\*\*

C/ Pintor Maella, 35. Valencia 46023 (España)

Phone: (34) 96 3350300  
Fax: (34) 96 3350311  
E-mail: [tryp.oceanic@solmelia.com](mailto:tryp.oceanic@solmelia.com)  
Web page: [www.solmelia.com](http://www.solmelia.com)

4. Confortel Aqua Valencia \*\*\*  
C/ L.Garcia Berlanga 19-21, 46023 Valencia  
Phone: (+34) 96 318 71 01  
Fax: (+34) 96 318 71 27  
E-mail: [infoaqua3@confortel.com](mailto:infoaqua3@confortel.com)  
Web page: [www.confortelhoteles.com/html/es/hotel-confortel-aqua3.php](http://www.confortelhoteles.com/html/es/hotel-confortel-aqua3.php)

5. Confortel Aqua Valencia \*\*\*\*  
C/ L.Garcia Berlanga 19-21, 46023 Valencia  
Phone: (+34) 96 318 71 00  
Fax: (+34) 96 318 71 67  
E-mail: [infoaqua4@confortel.com](mailto:infoaqua4@confortel.com)  
Web page: [www.confortelhoteles.com/html/es/hotel-confortel-aqua4.php](http://www.confortelhoteles.com/html/es/hotel-confortel-aqua4.php)

6. AC hotel Valencia \*\*\*\*  
Av. Francia 67, 46023 Valencia  
Tel: 963 317 000  
Fax: 963 317 001  
E-mail: [acvalencia@ac-hotels.com](mailto:acvalencia@ac-hotels.com)  
Web page: <http://www.ac-hotels.com>

7. Valencia Center \*\*\*\*  
Avda. de Francia 33, 46023 Valencia  
Phone: 963 350 700  
Fax: 963 350 702  
Email: [valencia@hotelescenter.com](mailto:valencia@hotelescenter.com)  
Web page: [www.hotelescenter.es](http://www.hotelescenter.es)

8. Barceló Valencia \*\*\*\*  
Av. de Francia, 11 (esq. Padre Toms Montaa). 46023, Valencia  
Phone: 34 963 306 344  
Fax: 34 963 306 831  
E-mail: [valencia@barcelo.com](mailto:valencia@barcelo.com)  
Web page: [www.barcelo.com/BarceloHotels/es-ES/Hotels/Spain/Valencia/Valencia/Home](http://www.barcelo.com/BarceloHotels/es-ES/Hotels/Spain/Valencia/Valencia/Home)

9. Holiday Inn Valencia \*\*\*\*  
Paseo de la Alameda 38, 46023 Valencia  
Phone: 34 963 032 100  
Fax: 34 963 032 126  
Email: [hotel@holidayinnvalencia.com](mailto:hotel@holidayinnvalencia.com)  
Web page: [www.valencia.holiday-inn.com](http://www.valencia.holiday-inn.com)

10. Beatriz Rey Don Jaime \*\*\*\*  
Avenida Baleares, 2 46023 Valencia  
Phone: 96 3375030  
Fax: 96 3371572  
Email: [beatrizreydonjaime@beatrizhoteles.com](mailto:beatrizreydonjaime@beatrizhoteles.com)  
Web page: [www.beatrizhoteles.com/valencia/hotel.htm](http://www.beatrizhoteles.com/valencia/hotel.htm)

11. Nh Ciudad de Valencia \*\*\*  
Avenida del Puerto, 214, 46023 Valencia  
Phone: +34 963 307 500  
Fax: +34 963 309 864  
Email: [nhciudaddevalencia@nh-hotels.com](mailto:nhciudaddevalencia@nh-hotels.com)  
Web page: [www.nh-hotels.com/HotelesValencia](http://www.nh-hotels.com/HotelesValencia)

12. Solvasa hotel Valencia \*\*\*\*  
Av. Puerto 129, 46022 Valencia  
Phone: 902 322 007

Fax: 902 522 007  
E-mail: [valencia@solvasa.com](mailto:valencia@solvasa.com)  
Web page: [www.solvasa.com](http://www.solvasa.com)

13. Abba acteon Valencia \*\*\*\*  
Vicente Beltrán Grimal, 2 - 46023 Valencia  
Phone: +34 96 331 07 07  
Fax: +34 96 330 22 30  
Email: [acteon@abbahoteles.com](mailto:acteon@abbahoteles.com)  
Web page: <http://www.abba-acteonhotel.com/>

14. Express by holiday inn Valencia Ciudad de las Ciencias \*\*\*  
Rafael Ferreres 22, 46013 Valencia  
Phone: +34 96 3162530  
Fax: +34 96 3952848  
Web page: [www.valencia-ciencias.hiexpress.com](http://www.valencia-ciencias.hiexpress.com)

15. Husa Serrano \*\*\*  
General Urrutia, 48 46013 Valencia  
Tel. 963347800  
Fax: 963347801  
Email: [hotelserrano@husa.es](mailto:hotelserrano@husa.es)  
Web page: [www.husa.es/Serrano](http://www.husa.es/Serrano)

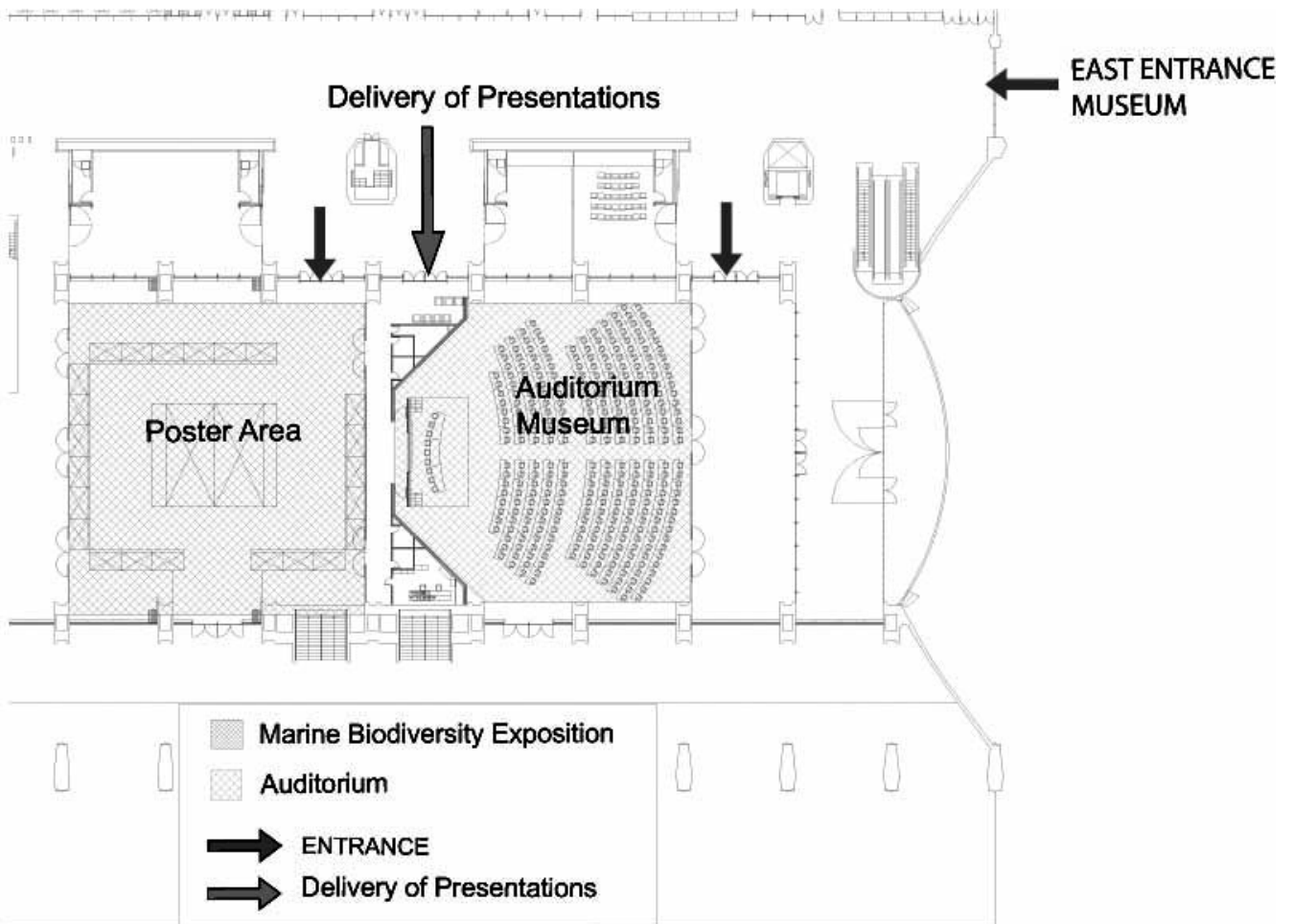
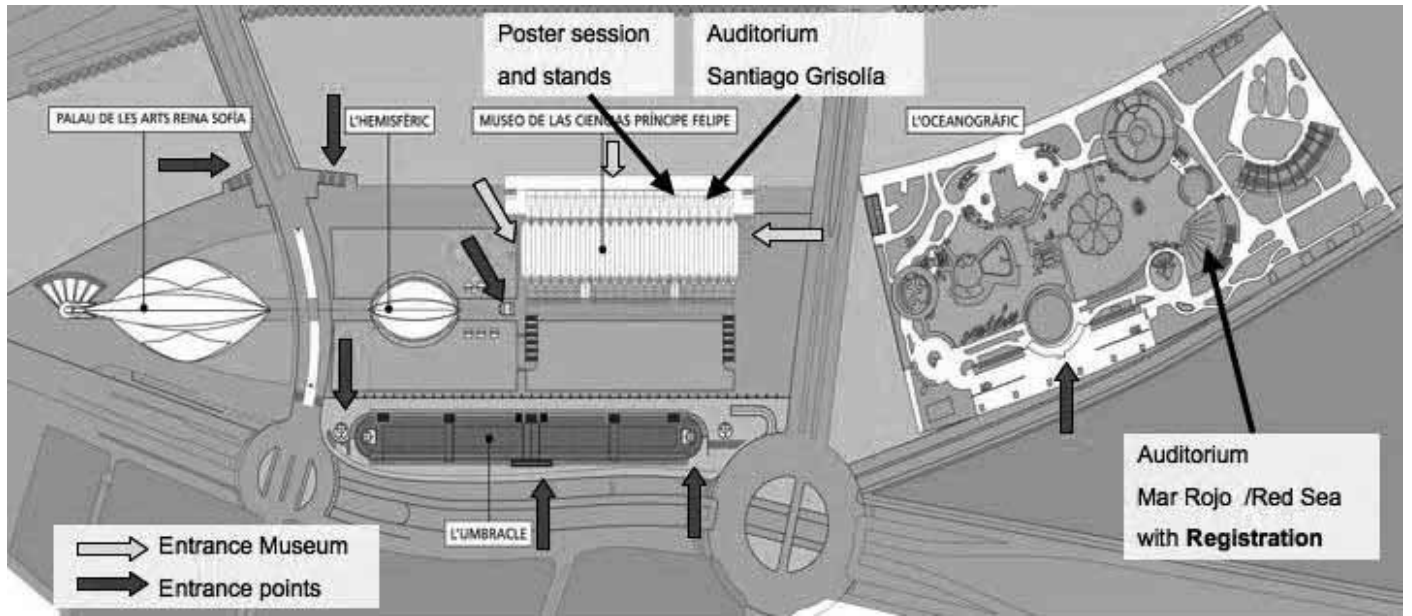
16. Sidi Saler \*\*\*\*\*  
Playa del Saler, s/n 46012 Valencia  
Phone: +34 96 161 04 11  
Fax +34 96 161 08 38  
Web page: [www.hotelessidi.es](http://www.hotelessidi.es)

17. Meliá Valencia Palace \*\*\*\*\*  
Paseo de la Alameda, 32 46023 Valencia  
Phone: (34) 96 3375037  
Fax: (34) 96 3375532  
E-mail: [melia.valencia.palace@solmelia.com](mailto:melia.valencia.palace@solmelia.com)  
Web page: [www.solmelia.es](http://www.solmelia.es)

18. Silken Puerta Valencia \*\*\*\*  
Avda. Cardenal Benlloch, 28 46021 Valencia  
Phone: 963 936 395  
Fax: 963 936 396  
Web page: [www.hoteles-silken.com](http://www.hoteles-silken.com)

19. Nh Villacarlos \*\*\*  
Avda. del Puerto 60, 46023 Valencia  
Phone: Tel.: +34 963 375 025  
Fax: +34 963 375 074  
E-mail: [nhvillacarlos@nh-hotels.com](mailto:nhvillacarlos@nh-hotels.com)  
Web page: [www.nh-hotels.com](http://www.nh-hotels.com)

# 7- Maps of the venue (indicating rooms)



# 8- Instructions for posters and oral presentations

## Poster presentations.

Posters have to be produced in portrait layout with a vertical dimension of 120 cm and a horizontal dimension of 85 cm. Posters will be attached to the panels using tape. Panels will be numbered 1 through 120, so you can locate the panel assigned to display your poster. A table with the assignments will be available at the poster room.

The posters sessions will be displayed in two sessions

Session A: Nov. 11 and 12; Session B: Nov.13 and 14.

Those posting their posters on Session A must have their poster displayed before 16:00 of November 11, and must remove their posters before 11:00 Nov. 13.

Those posting their posters on Session B must have their poster displayed before 16:00 of November 13, and must remove their posters before 11:00 Nov. 15.

## Oral presentations.

Oral presentations have a total length of 15 minutes, which should be partitioned as a maximum of 12 minutes for the oral presentation and 3 minutes for questions. Session chairs will be asked to enforce the time limits, as any delay (or advance) relative to the scheduled time will lead to confusion to those shifting rooms to attend a particular presentation. The platform to display your oral presentations will be PC computers with Windows operative system. Oral presentations should be prepared as Powerpoint presentations for Windows 1997 through 2004 versions (Powerpoint presentations for VISTA are not supported, and other presentation software is not supported at the meeting). If your presentation includes any movies, these must be included in a format standard for Windows computers. Presentations will have to be delivered at the designated room at the Museum (look for sign: WCMD - Delivery of Presentations at the Museum, signs will be posted and the program includes a map with the location) from 10:00 to 19:00 the day prior to your presentation. If your presentation is scheduled on Tuesday 11, please note that the service will only be available from 16:00 to 19:00 and that you have to register to have access to the room where presentations must be delivered.

The presentations must be delivered on a CD, DVD or Memory Stick. At the time of delivery, please make sure to check your slides for reproducibility, as no further changes will be allowed once the presentations are delivered. The presentations will be pre-loaded on the computers available at the presentation room for your session.

# 9 - Information on sponsoring and organization

## List of Sponsoring Organizations WCMB

Census of Marine Life CoML  
Ciudad de las Artes y las Ciencias (CAC), Valencia  
Consejo Superior de Investigaciones Cientificas, CSIC, Spain  
European Commission DG Research  
EU Network of Excellence Marine Biodiversity and Ecosystem Functioning MarBEF  
European Census of Marine Life EuroCoML  
European Science Foundation (Eurodeep Programme)  
International Council for the Exploration of the Sea ICES  
Plan Bleu – Regional Activity Centre for the Mediterranean  
Scientific Committee on Oceanic Research SCOR  
UNESCO International Oceanographic Commission IOC and Man and Biosphere Programme MAB  
Universidad de las Islas Baleares

## List of other supporting organizations

Conseil International pour l'Exploration Scientifique de la Mediterranée CIESM  
Diversitas – International Programme on Biodiversity Research  
European Environmental Agency EEA  
European Network of Marine Institutes and Stations MARS  
Scientific Committee on Antarctic Research SCAR

## List of web pages (in alphabetical order)

<http://www.cac.es>  
<http://www.coml.org>  
<http://www.csic.es>  
<http://www.ciesm.org>  
<http://www.diversitas-international.org>  
<http://ec.europa.eu/research>  
<http://www.marbef.org>  
<http://www.eurocoml.org>  
<http://www.esf.org/eurodeep>  
<http://www.planbleu.org>  
<http://www.eea.europa.eu>  
<http://www.marsnetwork.org>  
<http://www.ices.dk>  
<http://www.scar.org>  
<http://www.scor-int.org>  
<http://www.uib.es>  
<http://ioc-unesco.org>  
<http://www.unesco.org/mab/>

# 10 - Information on MarBEF

## The EU network of excellence Marine Biodiversity and Ecosystem Functioning: a Short History.

### Carlo Heip, Pim van Avesaath and Herman Hummel

When the networks of excellence were introduced as a tool for creating the European Research Area in Framework Programme 6, the response of the European marine community was positive and rapid. One reason why the marine community was prepared and became quickly organized was that starting with FP5 a number of projects had been funded by the European Commission that originated from the long-standing cooperation of European scientists and institutes in the European Network of Marine Stations MARS. Projects such as BIOMARE, Marble and MARBENA paved the way for MarBEF.

The first concrete ideas for MarBEF were presented at a meeting 'Towards a Network of Excellence in Marine Biodiversity' in the Trippenhuis of the Royal Netherlands Academy of Arts and Sciences in Amsterdam on March 18, 2002, with 31 participants interested in the initiative being present and many other people expressing their support but unable to attend. The main aim of that meeting was to get support for an Expression of Interest for a Network of Excellence on Marine Biodiversity that could be submitted to the call for EoI's that closed on 7 June 2002. Although the deadline was very close, it was decided to develop the plans for a network on Marine biodiversity and ecosystem functioning, and in fact MarBEF was born.

In the Expression of Interest for MarBEF, supported by 52 institutes, six main activities and questions were defined:

1. the exploration of marine biodiversity in Europe.
2. the relationship between ecosystem functioning and biodiversity.
3. the relationship between species and the stability of ecosystems, including functional groups and the role of rare species
4. what determines the success or failure of invasive species
5. the large-scale gradients in species richness and how they change in time.
6. the relationship between ecosystem functioning and the sustainable use of marine biodiversity across Europe and globally

The expression of interest, one of many thousands, became subject of an item in the first FP6 call published on the 17th of December 2002. The call asked for developing a network to structure and integrate European research on marine biodiversity and ecosystems. The objective of the research part of the network

should be to understand, assess and forecast marine biodiversity (species and genetic levels) on a global scale, in an ecosystem context. The function of biodiversity and the consequences of changes in biodiversity on marine ecosystem stability and functioning and on their ability to provide goods and services should be considered, as well as the combined effects of the main drivers (anthropogenic and natural). Socio-economic implications had to be taken into account.

We all felt that this was 'a once-in-a-lifetime-opportunity' for marine biodiversity research in Europe. Again there was not much time left for the preparation of the proposal. We only had 5 months to develop the plans. The possibilities for the development of the full proposal were studied in a meeting with a small committee in The Hague on 15 November 2002. In that meeting it was decided to re-structure MarBEF in the three main research themes that we know today:

1. Global Patterns of marine biodiversity across ecosystems
2. Marine Biodiversity and Ecosystem Function
3. Marine Biodiversity and Society

Thanks to the support of The Netherlands Organisation for Scientific Research (NWO) it was possible to continue the preparation of the proposal by organizing meetings in several locations (London, 20 December 2002; Amsterdam, 31 January 2003; and Barcelona 28 February – 1 March 2003) in order to discuss the progress and content of the proposal and to consult the consortium.

A relatively small but very active committee of writers managed to finish the proposal just a few hours before the deadline and a 'volunteer' had to 'race' to Brussels to submit the proposal.

The interest for MarBEF was overwhelming. During the preparation of the proposal, the consortium had grown to more than 600 scientists and PhD students, and still we managed to overlook some potential partners, which did not result in great friendships.

According to the EC rules we could apply for a total budget of more than 20,000,000 Euro's. Of course we did... 'Nothing ventured, nothing gained'. The reviews of the proposal were positive, the EC programme committee accepted MarBEF (we narrowly escaped the axe as we were the last one on the list) and on the 29th of June 2003 we were invited to start the contract negotiations. We were presented with a choice: try to finish the contract negotiations within two months time and start immediately, or wait until the other NoE's had concluded their Contract Negotiations; and 'here we go again' we chose the first option. At record speed we constructed the Consortium Agreement and concluded the contract negotiations with the EC.

The main obstacle was the EC grant to the budget. We realized that the amount claimed was not realistic. But now we had to trim the consortium and set of activities to fit to the budget that was restricted to 7.8 million euro's.

Another obstacle was the new instrument itself. How to integrate research without actually being allowed to do research? That was a principle we had to get used to.

Inevitably there was a lack of experience with NoE's and the new type of administration at both sides. MarBEF was more or less the Guinea Pig for the other NoE's. Given the limited amount of time available we had to take some crude measures to keep to the deadline, and several mistakes were made. We were very grateful for the support and flexibility with which the consortium partners approached the negotiations.

The official starting date of MarBEF was February 1, 2004. But the real start was on March 17 with the exiting kick-off meeting at the picturesque Provincial Palace of Bruges, hosted by VLIZ.

The structure of MarBEF had not changed since the proposal. We still have the three integrated research themes and the two programmes in a phased approach: we would start with the top-down organised Core Strategic Programme with a research agenda to fulfil the main objectives of MarBEF. This CSP would be supplemented with the bottom-up responsive Mode Programme to fill in emerging gaps at a later stage.

This system worked very well. The Responsive Mode Programme was welcomed with great enthusiasm: after the call for projects at the end of the first year, we received more than 90 proposals for projects. In the end we ended with a selection of 19 Responsive Mode Projects (RMPs) that supported the activities of the CSP. Soon it became clear that the RMPs were able to fill in the main objectives of the research themes, and this caused a shift in the goals of the programmes, the RMPs filling in the objectives of MarBEF and the CSP focusing on activities to fill in gaps.

Each year the consortium gathered to discuss the progress. General Assembly Meetings were organized in Porto (hosted by CIIMAR in 2005), Lecce (hosted by CONISMA in 2006), Sopot-Gdynia (hosted by IOPAS and IOUG in 2007), and now in Valencia (hosted by the UIB).

MarBEF has not functioned as a closed club. We have received many applica-

tions for membership after the consortium was formed. During the last 5 years the consortium grew with more than 24 associated members to now representing 700 scientists and other stakeholders from 93 institutes of 24 countries, and we are still receiving applications for membership now the network is near the end of its formal existence. It is clear that what has been created is really a network of institutes and people that will continue to work together for many years to come to help solving the problems that the world faces with the increasing loss of its marine biodiversity.

## 11 - Email access

Near the registration area two computers will be available to check e-mail. Wi-Fi will be available at both Auditoriums, and paid Wi-Fi is available at the Museum building, provided by Telefonica. Prepaid cards can be purchased at the Museum Store.

For free Wi-Fi locations in Valencia check: [www.jjwire.com](http://www.jjwire.com)

## 12 - Parallel Outreach Activities

The gathering of several thousand scientists at the World Conference on Marine Biodiversity provides the impetus to inform society on the benefits marine biodiversity delivers to society, the exciting discoveries emerging on marine biodiversity and the issues and concerns on its conservation.

The local organizing committee along with the staff at the City of Arts and Sciences has decided to take this opportunity to launch a series of activities for the public with the generic name "Living Sea: The Week of Marine Biodiversity".

WCMB participants are welcome to attend these activities, which include:

- Exhibitions: Deeper than Light exhibition. An exhibition on the life and ecosystems of the Deep Sea produced by Bergen Museum and the MAR-ECO Project ([www.mar-eco.no/exhibition](http://www.mar-eco.no/exhibition)). Opening at L'Oceanografic (Arctic dome) on Monday 10, evening. The photograph collections Planet Water and Microscopic Life will be displayed at the Museum during the week.

- The Hemispheric, the iMAX theater at CAC, will feature three movies (Dolphins, Deep Sea and Coral Reefs, cf. [www.cac.es/hemisferic/home](http://www.cac.es/hemisferic/home)) inspired on marine life throughout the week, including a special show for WCMB participants (Tuesday 11, 8:00 pm, free access with the participant's badge). Headsets with soundtrack in different languages (Spanish, catalan, French and English) are provided.

- Wednesday at 19:00, a talk on the oceans and human well being by a scientist will be followed by a demonstration of Yoga by the Tropical Tower.

- Thursday morning Marine Life for Children. Dr. Josep Gasol, marine scientist at Barcelona and member of MarBEF's Steering Committee, will dress as a clown to tell children stories on marine life in the polar oceans at the penguin aquarium, Antarctic pavilion.

- Thursday at 19:30 a Colloquium on the sea as a source of inspiration will take place at the Museum Auditorium, with the participation of a scientist, a famous composer and a famous chef, and a moderator.

- Parts of music inspired on the sea will be played by a chamber music ensemble and improvised jazz inspired on the marine life displayed will be played at different locations in the Oceanografic on Saturday morning.

- Saturday at 18:30, a group of modern danze will feature a performance inspired on marine life at the Red Sea Aquarium.

- Sunday morning an old movie on the sea and its life will be played at the Red Sea Aquarium.

## 13 - List of presentations and posters

# Tuesday November 11

## Morning

### Red sea auditorium

#### Session 3.2 What lived in the oceans? Shifting baselines in time and space.

*Chairs: Bo Poulsen; Loren McClenachan; Andrew A. Rosenberg; Matthew McKenzie.*

12:00 - 12:15 RETREAT OF COLD-TEMPERATE SPECIES IN THE MEDITERRANEAN SEA (REPORT FROM THE CIESM WORKSHOP ON MEDITERRANEAN INDICATORS OF GLOBAL WARMING, HELGOLAND)  
Boero, Ferdinando. Dipartimento di Scienze e Tecnologie Biologiche e Ambientali, Università del Salento, Italy.

12:15 - 12:30 FISHING AND JELLYFISH ERADICATE FISH 180 YEARS AGO.  
Poulsen, Bo, Department of Environmental, Social and Spatial change, Roskilde University,  
MacKenzie, Brian R., National Institute of Aquatic Resources (DTU-Aqua), Technical University of Denmark and University of Aarhus, Copenhagen, Denmark.  
Poulsen Bo, Department of Environmental, Social and Spatial Change, Roskilde University, Denmark.

12:30 - 12:45 CLIMATE INFLUENCE ON THE BARENTS AND WHITE SEA ECOSYSTEMS.  
Lajus, Dimitry, Ichthyology and hydrobiology, St.Petersburg state university, Russian federation.  
Aleksieva, Yaroslava, P.P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow, Russian Federation.  
Lajus Julia, Center for Environmental and Technological History, European University at St. Petersburg, St. Petersburg, Russian Federation.

12:45 - 13:00 LONG-TERM CHANGES IN STONY CORAL ASSEMBLAGES OFF JAKARTA (1920 - 2005).  
Van der Meij, Sancia; Hoeksema Bert, Zoology, National Museum Auditorium of Natural History Naturalis, The Netherlands.

13:00 - 13:15 AOTEAROA / NEW ZEALAND; AN IDEAL TEST OF THE EFFECTS OF HUMAN IMPACTS SINCE FIRST ARRIVAL ON MARINE ECOSYSTEMS  
Macdiarmid, Alison, Benthic fisheries & ecology, National Institute of Water & Atmospheric Research, New Zealand.

13:15 - 13:30 TIMES OF CHANGE: TEMPORAL SHIFTS IN AN INTERTIDAL COMMUNITY AS A RESPONSE TO ANTHROPOGENIC FORCING FACTORS.  
Mead, Angela; Tunley, K., Griffiths, C. L. and Rouault, M. Marine Biology Research Centre, Zoology, University of Cape Town, South Africa.

### Museum auditorium

#### Session 1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray.

*Chairs: Paul Somerfield and Richard Warwick.*

12:00 - 12:15 ALL ANIMALS ARE EQUAL, BUT SOME ANIMALS ARE MORE EQUAL THAN OTHERS.  
Warwick, Richard; Somerfield Paul J, Plymouth Marine Laboratory, United Kingdom.

12:15 - 12:30 ARE MARINE BENTHIC COMMUNITIES ASSEMBLED AT RANDOM FROM REGIONAL SPECIES POOLS.  
Somerfield Paul, Plymouth Marine Laboratory, United Kingdom.

12:30 - 12:45 TOWARDS MARINE MACROECOLOGY: BUILDING ON JOHN GRAY'S LEGACY.  
Webb, Tom, Department of animal & plant sciences, University of Sheffield, UK.

12:45 - 13:00 SPATIAL SCALING IN BENTHIC ECOLOGY.  
Ellis, Joanne; Schneider David, Crydium Ltd, St John's. Canada.

13:00 - 13:15 LATITUDINAL PATTERNS IN BENTHIC INVERTEBRATE DIVERSITY ON EUROPEAN CONTINENTAL SHELVES: INSIGHTS FROM THE MARBEF DATABASE.

Renaud Paul, Research Akvaplan-niva, Norway; Bjørgesæter Anders, Biology, University of Oslo, Oslo, Norway; Karakassis, Ioannis, Biology, University of Crete, Heraklion; Kedra Monika, Institute of Oceanography PAS, Sopot, Poland; Kendall Michael, Plymouth Marine Laboratory, Plymouth, UK; Labruno Céline, Laboratoire d'Océanographie Biologique, Université Pierre et Marie Curie, Banyuls-sur-mer, France; Lampadariou Nikolaos, Hellenic Centre for Marine Research, Heraklion, Greece; Somerfield Paul, Plymouth Marine Laboratory Plymouth, UK; Webb Thomas Webb, Animal & Plant Sciences, University of Sheffield, Sheffield, UK.; Vanden Berghe Edward, OBIS, Rutgers University, New Brunswick, NJ, USA; Claus Simon, Vlaams Instituut voor de Zee, Oostende, Belgium.

13:15 - 13:30 HABITAT VARIATION, SPECIES DIVERSITY AND ECOLOGICAL FUNCTIONING IN A MARINE SYSTEM

Hewitt, Judi; Thrush Simon, Hamilton. National Institute of Water and Atmospheric Research, New Zealand.  
Dayton, Paul. SCRIPPS. USA.

### Polivalente Room

#### Session 1.9 The Coral Triangle: patterns and processes in marine species richness and habitat diversity

*Chairs: Bert W. Hoeksema; Michael N. Dawson; Gustav Paulay; Annadel Carabanban.*

12:00 - 12:15 USE OF PRESENCE/ABSENCE DATA TO INDICATE CUMULATIVE SPECIES RANGE OVERLAPS IN THE CORAL TRIANGLE.

Hoeksema, Bert, Zoology, National Museum Auditorium of Natural History Naturalis, The Netherlands.

12:15 - 12:30 ECOLOGY AND EVOLUTION IN MARINE LAKES ACROSS THE INDO-WEST PACIFIC.

Dawson, Michael; Martin Laura, School of Natural Sciences, University of California, Merced, USA.  
Bell Lori; Patris Sharon, Coral Reef Research Foundation, Koror, Palau.

12:30 - 12:45 WHAT MOLECULAR GENETIC MARKERS CAN TELL ABOUT EVOLUTION IN THE CORAL TRIANGLE.

Kochzius, Marc, University of Bremen, Biotechnology and Molecular Genetics, Germany.

12:45 - 13:00 MARINE HOTSPOTS REVISITED: AMPHIPODS AS MODEL ORGANISMS IN THE ASSESSMENT OF CORAL REEF BIODIVERSITY.

Thomas, James, Oceanography, Nova Oceanographic Center, USA.

13:00 – 13:15 MARINE KEY BIODIVERSITY AREAS IN THE PHILIPPINE HOTSPOT.  
Ambal, Ruth Grace, Sheila Vergara. Biodiversity Analysis Synthesis and Monitoring Unit, Conservation International – Philippines, Philippines.

13:15 – 13:30 ASPECTS OF DISTRIBUTION OF CORAL REEF DAMSEL-FISHES ALONG THE EGYPTIAN COASTS OF THE GULF OF SUEZ AND THE RED SEA PROPER.  
Ebeid, Maha, Environment, The National Institute of Oceanography and Fisheries, Egypt.

### Afternoon

#### Red sea auditorium

#### Session 1.3 Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems

*Chairs : Pedro Martinez Arbizu; Andrew Gooday; Ana Colaco; Adrian Glover; Stefanie Keller.*

15:00 – 15:15 BIODIVERSITY AND ECOSYSTEM FUNCTION IN THE ABYSS: SOURCE AND SINKS, GLOBAL WARMING AND IRON FERTILIZATION.  
Smith Craig; DeLeo Fabio; Benardino Angelo; Sweetman Andrew, Oceanography, University of Hawaii at Manoa, USA.  
Martinez Pedro, DZMB, Forschungsinstitut Senckenberg, Wilhelmshaven, Germany.

15:15 – 15:30 GLOBAL PATTERNS OF ABYSSAL BIODIVERSITY.  
Martínez Arbizu, Pedro, German Center of Marine Biodiversity Research, Senckenberg Research Institut, Germany.

15:30 – 15:45 LONG-TERM RADICAL CHANGES IN DEEP-SEA ECOSYSTEMS - RESULTS FROM THE PORCUPINE ABYSSAL PLAIN SUSTAINED OBSERVATORY.

Billet, David; Lampitt R.S.; Bett BJ; Gooday AJ, Ocean Biogeochemistry and Ecosystems, National Oceanography Centre, Southampton, UK.  
Kalogeropoulou V, Lampadariou L, Hellenic Centre for Marine Research, Heraklion, Crete, Greece.  
Martínez Arbizu P, Senckenberg Institute, German Centre for Marine Biodiversity, Wilhelmshaven, Germany.  
Paterson GLJ, Department of Zoology, The Natural History Museum Auditorium, London, UK.  
Reid W, School of Marine Science and Technology, Newcastle University, Newcastle, UK.  
Salter I, Ocean Biogeochemistry and Ecosystems, National Oceanography Centre, Southampton, UK.  
Soto EH, Facultad de Ciencias del Mar y de Recursos Naturales, Universidad de Valparaíso, Viña del Mar, Chile.  
Vanreusel A, Marine Biology Section, University of Ghent, Ghent, Belgium.  
Wolff GA, Department of Earth and Ocean Sciences, University of Liverpool, Liverpool, UK.

15:45 – 16:00 ECOLOGICAL CONNECTIVITY AMONG SEAMOUNTS: COMBINING HYDRODYNAMIC DISPERSAL MODELLING AND OCEANSCAPE GENETICS TO EVALUATE MARINE PROTECTED AREA DESIGN IN AUSTRALIA.  
England, Phillip; Gunasekera Rasanthi, Marine & Atmospheric Research, CSIRO, AUSTRALIA.

Miller Keren, University of Tasmania, University of Tasmania, Hobart, Australia.  
Slawinski Dirk, Marine & Atmospheric Research, CSIRO, Perth, Australia.  
Audzijonyte Asta, MBARI, Moss Landing, USA.

#### Museum auditorium

#### Session 1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray

*Chairs : Paul Somerfield and Richard Warwick.*

15:00 – 15:15 HOW MANY HABITATS ARE THERE IN THE SEA (AND WHERE)?  
Fraschetti, Simonetta; Terlizzi Antonio; Boero Ferdinando, Department of Biological Environmental Science and Technology, Laboratory of Zoology and Marine Biology, Italy.

15:15 – 15:30 DISTRIBUTION PATTERNS OF SESSILE EPIFAUNA IN THE EASTERN ENGLISH CHANNEL: COMPARISON OF 1972-1976 TO 2004-2007.  
Dauvin, Jean-Claude, Foveau, Aurelie; Marine Station Wilmereux, Lille 1 University, France.

Desroy, Nicolas. Saint-Malo Station. IFREMER. France.  
Dewarumez, Jean-Marie; Sandrine, Alizier; Cabrioch, Louis. Marine Biological Station. CNRS. France

15:15 – 15:30 NUMBERS AND DENSITY OF SPECIES ARE NOT THE SAME MEASURES OF BIODIVERSITY ON ROCKY SHORES ALONG THE COAST OF NEW SOUTH WALES  
Underwood, Anthony. Centre for Research on Ecological Impacts of Coastal Cities, University of Sydney, Australia  
Chapman, Maura G. Centre for Research on Ecological Impacts of Coastal Cities, University of Sydney, Australia  
Cole, Victoria J. Department of Zoology and Entomology, Rhodes University, South Africa  
Palomo, Gabriela. Museo Argentino de Ciencias Naturales, Buenos Aires

15:45 – 16:00 BIODIVERSITY IN ONE OCEAN.  
O'Dor Ronald, Census of Marine Life, Consortium for Ocean Leadership, USA.

#### Polivalente Room

#### Session 1.9 The Coral Triangle: patterns and processes in marine species richness and habitat diversity.

*Chairs : Bert W. Hoeksema; Michael N. Dawson; Gustav Paulay; Annadel Cabanban.*

15:00 – 15:15 CORAL REEF CONDITION CHANGES IN THE SOUTH-WESTERN CUBA.

Alcolado, Pedro M.; Hernández-Muñoz Darlenys; Busutil Linnet, Departamento de Ecología Marina, Instituto de Oceanología, Cuba.  
Caballero Hansel, Departamento de Exposiciones Biológicas, Acuario Nacional de Cuba, Cuba.  
Perera Susana, Departamento de Planificación de Áreas Marinas, Centro Nacional de Áreas Protegidas, La Habana, Cuba.  
Hidalgo Gema, Departamento de Biología Marina, Instituto de Oceanología, La Habana, Cuba.

15:15 – 15:30 THE SPONGE FAUNA OF INDONESIAN MARINE LAKES AND MANGROVES.

Becking, Leontine; de Voogd Nicole J. Zoology, National Museum of Natural History, The Netherlands.

15:30 – 15:45 RELATING SPONGE SPECIES TRAITS TO ENVIRONMENTAL VARIABLES IN INDONESIAN CORAL REEF SPONGE ASSEMBLAGES.

De Voogd, Nicole, Zoology, National Museum of Natural History, The Netherlands.  
Cleary Daniel F.R., Biology, CESAM - Centro de Estudos do Ambiente e do Mar, Aveiro, Portugal.

## Red sea auditorium

### Session 1.11 The taxonomic component of marine biodiversity

*Chairs : Geoff Boxshall; Christos Arvanitidis.*

16:30 – 16:45 THE MARBEF TAXONOMY CLEARING SYSTEM - A MODEL SYSTEM FOR DELIVERING DEMAND-LED TAXONOMY.  
Boxhall, Geoff, Zoology, The Natural History Museum Auditorium, UK.

16:45 – 17:00 DNA BARCODING OF OCEANIC PLANKTONIC OSTRACODA: SPECIES RECOGNITION AND DISCOVERY  
Angel, Martin, OBE, National Oceanography Centre, UK.  
Nigro Lisa; Bucklin Ann, Department of Marine Science, University of Connecticut, Groton CT 06340, USA;

17:00 - 17:15 CRYPTIC SPECIATION IN MARINE OLIGOCHAETES REVEALED BY DNA DATA.  
Erséus, Christier, Department of Zoology, Göteborg University, Sweden.

17:15 – 17:30 BARCODING BONES – A SECOND POPULATION OF OSEDAX MUCOFLORES IDENTIFIED BY DNA FROM BONES FOUND IN A SHRIMP TRAWL.  
Dahlgren, Thomas; Wiklund Helena, Department of Zoology, Göteborg University, Sweden; Glover Adrian, Natural History Museum Auditorium, London.

17:30 – 17:45 MARINE INVENTORIES AND DNA BARCODING.  
Sundberg, Per, Zoology, University of Gothenburg, Sweden.

17:45 – 18:00 ANNELID BIODIVERSITY AT EPHEMERAL CHEMOSYNTHETIC HABITATS.  
Wiklund, Helena, Department of Zoology / Systematics and Biodiversity, Göteborg University, Sweden.  
Glover Adrian G, Zoology Department, The Natural History Museum Auditorium, London, United Kingdom.  
Smith Craig R, Department of Oceanography, University of Hawaii, Honolulu (USA).  
Dahlgren Thomas G, Department of Zoology / Systematics and Biodiversity, Göteborg University, Sweden.

18:00 – 18:15 MORE THAN MEETS THE EYE: CRYPTIC SPECIATION IN HIPPOTHOID BRYOZOANS.  
Hughes, Roger, School of Biological Sciences, Bangor University, U.K.

18:15 – 18:30 BIODIVERSITY OF DECAPOD CRUSTACEANS OF THE GERMAN SECTOR OF THE SOUTHERN NORTH SEA. -CHANGES IN SPACE AND TIME.  
Sonnenwald, Moritz, Marine Zoology co. Dr. M. Tuerkay, Senckenberg Research Institute, Germany.

## Afternoon

### Museum auditorium

**Session 2.2 Biodiversity & Ecosystem Shifts: Viewed from the Bottom Up**  
*Chairs : John R. Dolan; Wiebe Kooistra.*

16:30 – 16:45 THE EVOLUTION OF COMPLEX MARINE EUKARYOTES AND THEIR IMPACT ON THE EARTH SYSTEM.  
De Vargas, Colomban, Evolution du Plancton et Paléo-Océans, Station Biologique de Roscoff, France.  
Kooistra Wiebe, Marine Botany, Stazione Zoologica Anton Dohrn, Naples, Italy.

16:45 – 17:00 MAJOR DIFFERENCES OF BACTERIAL DIVERSITY AND ACTIVITY INSIDE AND OUTSIDE OF A NATURAL IRON-FERTILIZED PHYTO-

PLANKTON BLOOM IN THE SOUTHERN OCEAN

West, Nyree. Laboratoire d'Océanographie Biologique, Observatoire Océanologique de Banyuls, Banyuls sur Mer, France

17:00 – 17:15 CONCEPTS AND DEFINITIONS IN MARINE BIODIVERSITY RESEARCH: WHERE DO MICROBES FIT THE BIODIVERSITY-FUNCTIONING DEBATE?

Gasol, Josep M, Biologia Marina i Oceanografia, Institut de Ciències del Mar-CSIC, Spain.  
Jürgens Klaus, Institut für Ostseeforschung Warnemünde, Rostock, Germany.

17:15 – 17:30 ADVANCING UNDERSTANDING OF BIOGEOGRAPHY-DIVERSITY RELATIONSHIPS OF MICROORGANISMS IN THE NORTH SEA.  
Sapp Melanie; Parker Ruth; Schratzberger Michaela, Ecosystem and Environment, Cefas Laboratory, UK.

17:30 – 17:45 COASTAL DEVELOPMENT AFFECTS DIVERSITY AND ECOLOGICAL PROCESSES OF KELP EPIFAUNA.

Marzinelli, Ezequiel; Coleman Ross; Underwood Antony; Blockley David, Centre for Research on Ecological Impacts of Coastal Cities, University of Sydney, Australia.

17:45 – 18:00 REGIME SHIFTS AND SPECIES LISTS: CHANGES IN THE BLACK SEA REFLECTED IN SPECIES RECORD OF THE MICROZOOPLANKTON.  
Dolan John, Microbial d'Océanographie, Univ Paris 6-CNRS, Station Zoologique, France.

18:00 – 18:15 AN INTEGRATED MICROBIAL OBSERVATORY IN THE NW MEDITERRANEAN SEA

Lebaron, Philippe; Obernosterer, Ingrid; Intertaglia, Laurent; Laboratoire ARAGO, University Pierre et Marie Curie - Paris Universitatis, Banyuls-sur-mer, France  
Gasol, Josep; PEDROS-ALIO, Carlos. Departament de Biologie i Oceanografia. Institut de Ciències del Mar – CMIMA. Barcelona. Spain.

18:15 – 18:30 BACTERIAL COMMUNITIES ON COPEPOD FAECAL PELLETS: BIODIVERSITY, FACTORS AND FUNCTIONS.

De Troch, Marleen; Cnudde Cléo; Willems Anne; Vanreusel Ann, Marine Biology, Ghent University, Belgium.

## Polivalent Room.

**Session 1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray**

*Chairs : Paul Somerfield and Richard Warwick.*

16:30 – 16:45 BENTHOS CHARACTERISATION AND LINKS WITH CLIMATE DRIVERS OF THE NORWEGIAN CONTINENTAL SHELF AND EUROPEAN ARCTIC.

Bremner, Julie, Institute of Biology, University of Oslo, Norway.  
Cusson Mathieu, Département des sciences fondamentales, Université du Québec à Chicoutimi, Chicoutimi, Canada.  
Renaud Paul, Akvaplan-niva AS, Tromsø, Norway.  
Gray John, Institute of Biology, University of Oslo, Oslo, Norway.

16:45 – 17:00 ADDITIVE PARTITIONING OF BENTHIC MACRO-INVERTEBRATE DIVERSITY IN THE BALTIC SEA- NORTH SEA TRANSITION.

Josefson Alf, Marine Ecology, National Environmental Research Institute, University of Aarhus, Denmark.

17:00- 17:15 THE GRAY ZONE: RELATIONSHIPS BETWEEN HABITAT LOSS AND MARINE DIVERSITY AND THEIR APPLICATIONS IN CONSERVATION.

Airoldi, Laura; Balata David, Dipartimento Biologia Evoluzionistica Sperimentale, University of Bologna, Italy.

Beck Michael W., The Nature Conservancy and Institute of Marine Sciences, University of California, Santa Cruz, California, USA.

17:15 – 17:30 FAUNA ON MACROPHYTES: DIVERSITY PATTERNS AT DIFFERENT SCALES AND HABITATS.

Christie Hartvig, Department of marine biodiversity, Norwegian Institute for Water Research, Norway.

17:30 – 17:45 BENTHOS OF THE ARGENTINIAN CONTINENTAL SHELF: FAUNAL ASSEMBLAGES, SPECIES DISTRIBUTION AND RICHNESS ALONG A LATITUDINAL GRADIENT.

Bremec, Claudia Silvia; Schejter Laura; Gilberto Diego; Souto Valeria, Lab. Benthos, Instituto Nacional de Investigación y Desarrollo Pesquero, Mar del Plata, Argentina.

Acha Eduardo Marcelo, Ecología Pesquera-Plancton, CONICET-INIDEP. Mianzan Hermes, Ecología Pesquera-Plancton, CONICET-INIDEP.

17:45 – 18:00 WHICH FACTORS CAUSE BENTHIC DIVERSITY IN A LOW SALINITY MARINE ENVIRONMENT?

Glockzin, Michael; Zettler Michael L., Biological oceanography, Leibniz Institute for Baltic Sea Research Warnemünde (IOW), Germany.

18:00 – 18:15 FROM THE DATABASE TO THE SHORE: SPATIAL PATTERNS OF INTERTIDAL BIODIVERSITY.

Blight, Andrew; Johnson Mark; Allock Louise; Maggs Christie School of Biological Sciences, Queen's University Belfast, United Kingdom.

18:15 – 18:30 STRUCTURE AND DIVERSITY OF SHALLOW SOFT-BOTTOM BENTHIC MACROFAUNA IN THE GULF OF LIONS (NW MEDITERRANEAN).

Labruno, Celine, Laboratoire d'Océanographie Biologique de Banyuls-sur-Mer, Observatoire Océanologique de Banyuls-sur-Mer, France.

Grémare Antoine, UMR 5085, Station Biologique d'Arcachon, Arcachon, France. Amoroux Jean-Michel, Laboratoire d'Océanographie Biologique de Banyuls-sur-Mer, Observatoire Océanologique de Banyuls-sur-Mer, Banyuls-sur-mer, France. Sardà Rafael; Gil João; Taboada Sergi, Centre d'Estudis Avançats de Blanes, CSIC, Blanes, Spain.

## Wednesday November 12

### Morning

#### Red sea Auditorium

##### Session 1.1 Marine Biodiversity in Polar Regions

Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart

10:30 10:45 TESTING OLD TERRESTRIAL PARADIGMS IN ARCTIC MARINE ENVIRONMENT

Weslawski, Jan – Marcin; Włodarska-Kowalczyk, Maria; Legezynska, Joanna; Ecology, Institute of Oceanology Polish Academy of Sciences, Poland Kedra, Monika, Ecology, Institute of Oceanology PAS, Poland

10:45 11:00 BIODIVERSITY, BIOGEOGRAPHY AND FIRST RESULTS ON THE ECOLOGY OF THE DEEP SOUTHERN OCEAN BENTHOS

Brandt, Angelika, Zoological Museum Auditorium, University of Hamburg, Germany

11:00 11:15 DIVERSITY AND DISTRIBUTION PATTERNS OF AMPHIPOD CRUSTACEANS IN OLD (ANTARCTIC) AND YOUNG (ARCTIC) POLAR ENVIRONMENTS.

Jazdzewska, Anna, Laboratory of Polar Biology and Oceanobiology, Inst. of Ecology & Environmental Protection, University of Lodz, Poland Legezynska, Joanna; Weslawski, Jan marcin; Department of Marine Ecology, Institute of Oceanology PAS, Poland

Jazdzewski, Krzysztof, Laboratory of Polar Biology and Oceanobiology, University of Lodz, Poland

11:15 11:30 BIOGEOGRAPHY OF THE SOUTHERN OCEAN: A GLOBAL PERSPECTIVE ON DEEP MACROBENTHIC DISTRIBUTIONS

Kaiser, Stephanie, Zoological Museum Auditorium, University of Hamburg, Germany

11:30 11:45 HIGH SPECIES RICHNESS IN AGGREGATIONS OF THE POLYCHAETE FILOGRANA IMPLEXA IN A SUBARCTIC TIDAL RAPID IN NORTHERN NORWAY

Gulliksen, Bjørn, Department of Aquatic BioSciences, Norwegian College of Fishery Science, Norway

Haanes, Hallvard, Dep of Basic Sciences and Aquatic Medicine, The Norwegian School of Veterinary Science, Norway

11:45 12:00 FIRST ACROSS-REALM BIODIVERSITY COMPENDIUM FOR A POLAR LOCALITY: THE SOUTH ORKNEY ISLANDS, ANTARCTICA

Barnes, David; Griffiths, Huw, Biological Sciences, British Antarctic Survey, UK Kaiser, Stefanie, Biozentrum Grindel and Zoological Museum Auditorium, University of Hamburg, Germany

Linse, Katrin, Biological Sciences, British Antarctic Survey, UK

12:00 12:15 BIODIVERSITY IN COASTAL ARCTIC BEAUFORT SEA Iken, Katrin; School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, USA

Konar, Brenda. School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, USA

Schonberg, Susan. University of Texas at Austin.

12:15 12:30 DOES CLIMATE CHANGE INFLUENCE BIODIVERSITY OF MESOZOOPANKTON FROM THE EUROPEAN ARCTIC MARGINAL ICE ZONE?

Blachowiak-Samolyk, Katarzyna; Kwasniewski, Slawek; Marine Ecology Department, Institute of Oceanology of Polish Academy of Sciences, Poland Hop, Haakon; Falk-Petersen, Stig; Norwegian Polar Institute, Norway

12:30 12:45 BIOGEOGRAPHY OF THE MAGELLAN - ANTARCTIC ECHINOIDS. FORECASTS FOR ITS EVOLUTION

David, Bruno, Biogeosciences, University of Burgundy, France

12:45 13:00 BIODIVERSITY, BIOGEOGRAPHIC STRUCTURE AND QUANTITATIVE DISTRIBUTION OF BRYOZOANS IN THE CHUKCHI SEA AS A COMPONENT OF ECOSYSTEM OF THE SEA

Denisenko, Nina, Marine research department, Zoological Institute of the Russian Academy of Sciences, Russia

13:00 13:15 ANTARCTIC BENTHIC DIVERSITY: LOCAL TO REGIONAL PATTERNS, AND RELATIONSHIPS WITH PRODUCTIVITY

Glover, Adrian; Nealova, Lenka, Zoology Department, The Natural History Museum Auditorium, UK

Mincks, Sarah, Institute of Marine Science, University of Alaska, USA  
Sumida, Paulo, Instituto Oceanografico, University of Sao Paulo, Brazil  
Smith, Craig, Department of Oceanography, University of Hawaii, USA

13:15 13:30 EPIBENTHIC MEGAFUNA IN THE NORTHERN BERING AND CHUKCHI SEAS, ARCTIC

Mincks, Sarah; Bluhm, Bodil; Iken, Katrin; Iken, Katrin; Institute of Marine Science, University of Alaska, Fairbanks, USA  
Sirenko, Boris, Zoological Institute, Russian Academy of Sciences, Russia

## Museo Auditorium

### Session 3.1 Assessing the consequences of large-scale biodiversity change

*Chairs: Heike K. Lotze*

10:30 10:45 CONSEQUENCES OF DEPLETING LARGE PREDATORS IN OCEAN FOOD WEBS

Worm, Boris, Biology Department, Dalhousie University, Canada

10:45 11:00 ECOSYSTEM CONSEQUENCES OF HISTORICAL BIODIVERSITY CHANGES IN COASTAL WATERS

Lotze, Heike, Biology Department, Dalhousie University, Canada

11:00 11:15 IMPACTS OF HISTORICAL DEGRADATION ON ECOSYSTEM STRUCTURE IN MARINE FOOD WEBS

Coll Monton, Marta, Biology Department, Dalhousie University, Canada

11:15 11:30 RANGE CONTRACTION AND FRAGMENTATION IN LARGE, HIGHLY MOBILE PELAGIC FISHES

Tittensor, Derek; Worm, Boris; Biology, Dalhousie University, Canada

11:30 11:45 DECLINES IN HIGHER TROPHIC LEVEL FISH DECREASE COASTAL RESISTANCE TO EUTROPHICATION

Eriksson, Britas Klemens, Department of Marine Benthic Ecology and Evolution, University of Groningen, The Netherlands  
Ljunggren, Lars; Sandström, Alfred; Institute of Coastal Research, Swedish Board of Fisheries, Sweden  
Johansson, Gustav, The Foundation of Uppland, Sweden  
Mattila, Johanna, Husö Biological Station and the Department of Biology, Åbo Akademi University, Finland  
Rubach, Anja, Institute of Botany, University of Cologne, Germany  
Räberg, Sonja, Department of Botany, Stockholm University, Sweden  
Snickars, Martin, Husö Biological Station and the Department of Biology, Åbo Akademi University, Finland  
Sieben, Katrin, Department of Marine Benthic Ecology and Evolution, University of Groningen, The Netherlands

11:45 12:00 CONSEQUENCES OF BIODIVERSITY CHANGES FOR ECOSYSTEM FUNCTIONING: COMBINING LONG-TERM OBSERVATIONS, EXPERIMENTS AND MODELLING

Hawkins, Steve, College of Natural Sciences, Bangor University, UK  
Mieszkowska, Nova, Marine biodiversity and climate change, Marine Biological Association of the UK, UK  
Moore, Pippa, School of Biological Sciences, University of Plymouth, UK  
Poloczanska, Elvira, Marine and Atmospheric Research, CSIRO, Australia  
Sugden, Heather, College of Natural Sciences, Bangor University, UK  
Burrows, Michael T., Ecology Department, Scottish Association for Marine Science, UK

12:00 12:15 INTERACTIVE EFFECTS OF RED AND WHITE NOISE PROCESSES ON MARINE COASTAL BIODIVERSITY: IMPLICATIONS FOR PREDICTING CHANGES IN STRUCTURE AND FUNCTION OF COASTAL SYSTEMS  
Benedetti-Cecchi, Lisandro; Tamburello, Laura; Bertocci, Iacopo; Maggi, Elena; Vaselli, Stefano; Bulleri, Fabio; Department of Biology, University of Pisa, Italy

12:15 12:30 MECHANISMS & PARADIGMS UNDERPINNING CLIMATE-DRIVEN SHIFTS IN MARINE BIOGEOGRAPHY

Mieszkowska, Nova, Marine Biodiversity and Climate Change, Marine Biological Association of the UK, UK  
Burrows, Mike, Scottish Association for Marine Science, Scotland  
Hawkins, Steve, University of Bangor, UK

12:30 12:45 CLIMATE ENVELOPE MODELS TO PREDICT THE GEOGRAPHICAL DISTRIBUTIONS OF THE ENDEMIC MEDITERRANEAN ICHTHIOFAUNA UNDER CLIMATE WARMING SCENARIOS

Ben Rais Lasram, Frida, Unité de Recherche Ecosystèmes et Ressources Aquatiques, Institut National Agronomique de Tunisie, Tunisia

12:45 13:00 PREDICTING LARGE SCALE CHANGES IN KELP FOREST – SEA URCHIN DISTRIBUTIONS AND POSSIBLE ECOLOGICAL CONSEQUENCES

Rinde, Eli; Norderhaug, Kjell Magnus; Christie, Hartvig; Bekkby, Trine; Biodiversity and Eutrophication in Marine Environments, Norwegian Institute for Water Research (NIVA), Norway

13:00 13:15 CHANGES IN PLANKTON DYNAMICS AND BIODIVERSITY IN THE OLIGOTROPHIC BAY OF CALVI (CORSICA, NORTHWESTERN MEDITERRANEAN): RESPONSE TO CLIMATE CHANGE

Goffart, Anne; Hecq, Jean-Henri, Oceanology, University of Liège, Belgium

13:15 13:30 PATTERNS OF CHANGE AT COMMUNITY LEVEL: TROPIC SHIFTS AND TAXONOMIC DISTINCTNESS AT SEAGRASS BEDS MACROBENTHIC COMMUNITIES INVADED BY SEAWEEDS

Deudero, Salud, Biology, Universitat Illes Balears, Spain

## Polivalente Auditorium

### Session 2.5 Marine bioinvasions and ecosystem functioning

*Chairs: Sergej Olenin; Anna Occhipinti Ambrogi; Stephan Gollasch*

10:45 11:00 CLIMATIC REGULATION OF INVASION IMPACTS ON NATIVE DIVERSITY AND ECOSYSTEM FUNCTIONING

Queiros, Ana; Kaiser, Michel Joseph; Hiddink, Jan Geert; Coastal Resource Ecology and Management, School of Ocean Sciences, College of Environmental Sciences, Bangor University, UK  
Nogueira Cabral, Enrique, Instituto de Oceanografía, Faculdade de Ciências, Universidade de Lisboa, Portugal

11:00 11:15 THE ROLE OF INTRODUCED PONTO-CASPIAN CRUSTACEANS IN THE ESTUARINE SYSTEMS OF THE BALTIC

Razinkovas, Arturas; Gasiunaite, Zita; Lesutiene, Jurate; Coastal Research & Planning Institute, Klaipeda University, Lithuania  
Berezina, Nadezhda, Laboratory of Freshwater and Experimental Hydrobiology, Zoological Institute RAS, Russia

11:15 11:30 SEBI2010 SUBINDICATOR "CUMULATIVE NUMBER OF MARINE ALIEN SPECIES IN EUROPE SINCE 1900"  
Zenetos, Argyro, Institute of Marine Biological Resources, Hellenic Centre for Marine Research, Greece  
Josefsson, Melanie, Swedish Environmental Protection Agency, Sweden  
Baldursson, Snorri, Icelandic Institute of Natural History, Iceland  
Larsson, Tor-Bjorn, EEA, Denmark

11:30 11:45 The impact of the introduction of the two ascidians: *Aplidium argus* and *Aplidium nordmanni* on the native Mediterranean species, *Aplidium conicum*  
Chebbi, Nadia, Halieutic, National agronomic institute of Tunisia, Tunisia  
Mastrototaro, Francesco, zoologo, University of Bari, Italy  
Missaoui, Hechmi, halieutic, National agronomic institute of Tunisia, Tunisia

11:45 12:00 IMPACT OF NATIVE AND INVASIVE ALGAL WRACK ON MACROFAUNAL ASSEMBLAGES IN SANDY BEACHES  
Rodil, Iván; Olavarria, Celia; Lastra, Mariano; Jesús, España; Ecología y Biología Animal, Universidad de Vigo, Spain

12:00 12:15 PHYLOGEOGRAPHY, LIFE-HISTORY AND ECOLOGY OF THE GLOBAL MARINE INVADER *MICROCOSMUS SQUAMIGER* (ASCIDIACEA)  
Rius, Marc; Pascual, Marta; Department de Biologia Animal, Universitat de Barcelona, Spain  
Marshall, Dustin J., Centre of Marine Studies, The University of Queensland, Australia  
Griffiths, Charles L.; Branco, George M.; Centre of Invasion Biology, Zoology Department, University of Invasion Biology, Zoology Department, South Africa  
Pineda, Mari Carmen, Departamet de Biologia animal, Univrsitat de Barcelona, Spain  
Turon, Xavier, Centre for Advanced Studies of Blanes, CSIC, Spain

12:15 12:30 FITTING THE INVASION HISTORY OF THE ALIEN *XENOSTROBUS SECURIS* (MOLLUSCA, MYTILIDAE) IN RIA OF VIGO (NW SPAIN)  
Pascual, Santiago, Ecology And Marine Biodiversity (Ecobiomar), Investigaciones Marinas (CSIC), Spain  
Posada, David, Genetica, FACULTAD DE CIENCIAS. UNIVERSIDAD DE VIGO, Spain  
Villalba, Antonio; Abollo, Elvira; CENTRO DE INVESTIGACIONES MARIÑAS (XUNTA DE GALICIA), Spain  
Nombela, Miguel Angel, Edafologia y estratigrafía, FACULTAD DE CIENCIAS. UNIVERSIDAD DE VIGO, Spain  
Gonzalez, Angel F.; Garcia, Muel E.; Guerra, Angel; Ecobiomar, INSTITUTO DE INVESTIGACIONES MARINAS (CSIC), Spain

12:30 12:45 KAMCHATKA CRAB (*PARALIRHODES CAMTSCHATICUS*) IN THE BARENTS SEA: A REVIEW OF THE STATUS AND IMPACT ON THE ECOSYSTEM  
Sokolov, Vasily, Laboratory of commercial invertebrates, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Russia  
Spiridonov, Vassily, Laboratory of coastal ecosystems, P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences, Russia

12:45 13:00 THE PROMINENCE OF NATIVE BLUE MUSSELS AS ECOSYSTEM ENGINEERS IN THE INTERTIDAL FLATS OF THE WADDEN SEA IS REPLACED BY ALIEN OYSTERS: STATUS QUO OF SYSTEM CHANGE  
Markert, Alexandra; Esser, Wiebeke; Werham, Achim; Dept. for Marine Research, Senckenberg Institute, Germany

13:00 13:15 DIFFERENT FOOD WEB STRUCTURE COULD LEAD TO DIFFERENT RESPONSE OF AN INVADER, A CASE STUDY ON *MNEMIOPSIS LEIDYI*  
Javidpour, Jamileh; Sommer, Frank; Sommer, Ulrico; Food web, Leibniz Institute of Marine Sciences, Germany

13:15 13:30 PATTERNS AND IMPACTS OF MARINE BIOINVASIONS IN SOUTH AFRICA  
Griffiths, Charles, Zoology, University of Cape Town, South Africa

## Lunch

### Red sea auditorium

#### Session 1.1 Marine Biodiversity in Polar Regions

*Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart*

15:00 15:15 SCAR-MARBIN: INSIGHTS IN ANTARCTIC BIODIVERSITY PATTERNS USING

Danis, Bruno. SCAR Marine Biodiversity Information Network. Royal Belgian Institute of Natural Sciences. Belgium

15:15 15:30 ZOOPLANKTON DYNAMICS IN THE EUROPEAN ARCTIC CORRIDOR IN A TIME OF CLIMATE CHANGE - ARE THERE EVIDENCES OF PELAGIC ECOSYSTEM REGIME SHIFT?

Kwasniewski, Slawomir; Olszewska, Anna; Department of Marine Ecology, Institute of Oceanology Polish Academy of Sciences, Poland  
Wold, Anette; Falk-Petersen, Stig; Hop, Haakon; Norwegian Polar Institute, Norway

15:30 15:45 COASTAL FISH ASSEMBLAGES OFFTERRE ADELIE (EAST ANTARCTICA): ROLE OF ICEBERG SCOURING, GLACIER AND INNERSHELF DEPRESSION

Koubbi, Philippe, Laboratoire d'Océanographie de Villefranche, Université Paris VI, France  
Eléaume, Marc, Département Milieux et Peuplements Aquatiques, MNHN, France  
Gutt, Julian, AWI, Germany

15:45 16:00 BENTHIC MACRO- AND MEGAFUNA IN THE CENTRAL ARCTIC CANADA BASIN

Bluhm, Bodil; Iken, Katrin; University of Alaska Fairbanks, School of Fisheries and Ocean Sciences, USA  
MacDonald, Ian, Texas A&M University, USA  
Gagaev, Sergey, Zoological Institute, Russian Academy of Sciences, Russia  
Strong, Sarah, Texas A&M University, USA

### Museum auditorium

#### Session 1.3 Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems

*Chairs: Pedro Martinez Arbizu; Andrew Gooday; Ana Colaço; Adrian Glover; Stefanie Keller.*

15:00 15:15 COMMUNITY DYNAMICS ON A HIGH TEMPERATURE HYDROTHERMAL EDIFICE: A DECADAL STUDY

Cuvelier, Daphne; Gunasekera, Rasanthi, Department of Oceanography and Fisheries, University of the Azores, Portugal  
Millar, Karen, University of Tasmania, Australia  
Slawinski, Dirk, Marine & Atmospheric Research, CSIRO, Australia  
Audzijonyte, Asta, MBARI, USA

15:15 15:30 GLOBAL DISTRIBUTIONAL PATTERNS OF POLYCHAETA AND FIRST INSIGHTS INTO COSMOPOLITANISM

Ebbe, Brigitte. DZMB. Senckenberg Institute. Germany.  
Schueller, Myriam. Zoology. Ruhr University of Bochum. Bochum.

15:30 15:45 DIVERSE SILICEOUS SPONGE FANUAS LINKED WITH BENTHIC BIODIVERSITY IN THE SOUTHERN OCEAN DEEP-SEA  
 Janussen, Dorte. Marine Evertbraten I. Forschungsinstitut und NaturMuseum Auditorium Senckenberg. Germany.  
 Plotkin, Alexander S. St. Petersburg State University, Russia

15:45 16:00 LARGE, ENIGMATIC FORAMINIFERAN-LIKE PROTISTS: DIVERSITY AND VERTICAL DISTRIBUTION IN SEDIMENTS OF AN ABYSSAL POLYMETALLIC NODULE FIELD (CLARION-CLIPPERTON FRACTURE ZONE, NE PACIFIC)  
 Radziejewska, Teresa. Department of Palaeoceanology. University of Szczecin. Poland  
 Kamenskaya, Olga. P.P.Shirshov Institute of Oceanology Russian Academy of Sciences. Moscow. Russia.  
 Gooday, Andrew J. National Oceanography Centre. Southampton. United Kingdom.  
 Radziejewska, Teresa. Department of Palaeoceanology. University of Szczecin. Poland

## Polivalente auditorium

### Session 4.1 Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications

*Chairs: Adrianna Ianora; Angelo Fontana*

15:00 15:15 CHEMICAL WARFARE IN PLANKTON COMMUNITIES  
 Fontana, Angelo; d'Ippolito, Giuliana; Cutignano, Adele; Lamari, Nadia; Functional Biosynthesis, CNR - Istituto di Chimica Biomolecolare, Italy.  
 Barreiro, Aldo, Facultad de Ciencias, Universidad de Vigo, Spain  
 Romano, Giovanna; Montresor, Marina; Ianora, Adriana; Stazione Zoologica "A. Dohrn", Italy

15:15 15:30 BIOACTIVE MARINE NATURAL PRODUCTS THAT ARE PROMISING DRUG LEADS AND CELL BIOLOGY TOOLS  
 Andersen, Raymond. Chemistry. University of British Columbia. Vancouver. Canada.

15:30 15:45 GENOMIC MINING FOR ELUCIDATION OF NOVEL BIOSYNTHETIC PATHWAYS FOR BIOACTIVE NATURAL PRODUCTS IN MICROALGAE  
 Cembella, Allan. Division of Biosciences. Alfred Wegener Institute for Polar and Marine Research. Bremerhaven. Germany  
 John, Uwe; Jaeckisch, Nina, Yang, Ines; Tillmann, Urban; Krock, Bernd; Stucken, Karina; Section of Ecological Chemistry. Alfred Wegener Institute for Polar and Marine Research. Bremerhaven. Germany.  
 Vásquez, Mónica. Departamento de Genética Molecular y Microbiología. Pontificia Universidad Católica de Chile, Laboratorio de Ecología Microbiana y Toxicología Ambiental. Santiago. Chile  
 Gloeckner, Gernot. Fritz Lipmann Institute for Age Research Jena, Germany

15:45 16:00 NEW ALKALOIDS FROM TWO MEDITERRANEAN CNIDARIANS  
 Thomas, Olivier; Cachet, Nadja; Chemistry, Université de Nice Sophia Antipolis - LCMB UMR6001 CNRS, France  
 Culioli, Gerald; Mokrini, Redouane. Chemistry. Université du Sud Toulon Var. Toulon. France.  
 Perez, Thierry. Chemistry. Centre d'Océanologie de Marseille – DIMAR. Marseille. France.  
 Mehiri, Mohamed. Chemistry. Université de Nice Sophia Antipolis - LCMB UMR6001 CNRS, France.

## Coffee break

### Session 1.1 Marine Biodiversity in Polar Regions

*Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart*

16:30 16:45 ECTOSYMBIOSIS ON CILARIDS, A CRITICAL FACTOR

IN ESTABLISHING LOCAL BENTHIC BIODIVERSITY IN DEEP WEDDELL SEA.  
 Rigaud, Thierry, Université de Bourgogne, UMR CNRS de Bourgogne, France  
 De Ridder, Chantal; Hétérier, Vincent; Biologie Marine, Université Libre de Bruxelles, Belgium  
 David, Bruno, UMR CNRS Biogéosciences, Université de Bourgogne, France

16:45 17:00 MARINE MICROPLANKTON BIODIVERSITY CHANGES OF ARCTIC IN FEWER". BENEFIT OR DISASTER?  
 Wiktor, Jozef; Piwosz, Katarzyna; Hapter, Ryszard. Marine Ecology Department, Institute of Oceanology PAS, Poland.

17:00 17:15 SYSTEMATICS AND BIOGEOGRAPHY OF ANTARCTIC DEEP-SEA GROMIIDS  
 Rothe, Nina; Gooday, A.J.; Hughes, J.A.; DEEPSEAS Benthic Biology Group, Zoological Institute of Russian Academy of Sciences, Russia  
 Pawlowski, J.; Fahrni, J.; Department of Zoology and Animal Biology, University of Geneva, Switzerland  
 Aranda da Silva, A., Centro de Estudos do Ambiente e do Mar, Universidade de Aveiro, Portugal  
 Pearce, R.B., Paleocceanography and Paleoclimate, National Oceanography Centre, Southampton, UK

17:15 17:30 ICELAND'S ISOPOD HIGHLIGHTS - HOW RIDGE STRUCTURES INFLUENCE DISTRIBUTION AND DIVERSITY OF DESMOSOMATIDAE SARS, 1897  
 Brix, Saskia. Senckenberg Forschungsinstitut und NaturMuseum Auditorium, Deutsches Zentrum für marine Biodiversitätsforschung, Germany  
 Svavarsson, Jörundur, Institute of Biology, University of Iceland, Finland

17:30 17:45 ZOOGEOGRAPHIC INFERENCES OF THE ANTARCTIC AND SUBANTARCTIC PYCNOGONIDS  
 Soler-Membrives, Anna; Munilla, Tomás; Biología Animal, Biología Vegetal y Ecología, Universitat Autònoma de Barcelona

17:45 18:00 MOLECULAR PHYLOGENY AND TIME DIVERGENCE ESTIMATION BETWEEN LINEAGES OF THE GENUS NACELLA (PATELOGASTROPODA: NACELLIDAE) IN THE SOUTHERN OCEAN.  
 González Wevar, Claudio Alejandro, Departamento de Ciencias Ecológicas, Universidad de Chile, Instituto de Ecología y Biodiversidad, Chile  
 Nakano, Tomoyuki, Department of Geology and Palaeontology, National Museum Auditorium of Nature and Science, Japan  
 Juan Iván, Cañete, Departamento de Recursos Naturales, Universidad de Magallanes, Chile  
 Elie, Poulin, Departamento de Ciencias Ecológicas, Universidad de Chile, Chile

18:00 18:15 LESS-KNOWN GROUPS IN THE ARCTIC GLACIAL FJORDS: SIPUNCULAN FAUNA CASE STUDY  
 Kedra, Monika, Department of Marine Ecology, Institute of Oceanology Polish Academy of Sciences, Poland

18:15 18:30 CENSUS OF ANTARCTIC MARINE LIFE (CAML)  
 Victoria A. Wadley, Michael D. Stoddart; Australian Antarctic Division, Hobart, Australia

### Session 2.3 Ecosystem Functioning and Biodiversity Science in the Deep sea

*Chairs: Inge Jonckheere; Françoise Gaill; Eva Ramirez-Llodra; Michail Yakimov; Christian Stenseth; Lisandro Benedetti-Cecchi*

16:30 16:45 TROPHIC DIVERSITY AND ECOSYSTEM FUNCTION IN HIGH-STRESS CONTINENTAL MARGIN ECOSYSTEMS.  
 Levin, Lisa, Scripps Institution of Oceanography, UC San Diego, EE.UU.

16:45 17:00 RELATIONSHIP BETWEEN BENTHIC BIODIVERSITY AND DEEP-SEA ECOSYSTEM FUNCTIONING: A MULTILAYER APPROACH  
 Danovaro, Roberto; Pusceddu, Antonio; Department of Marine Sciences, Poly-

technic University of Marche, Italy

17:00 17:15 DIVERSITY AND COLONIZATION PROCESSES OF OSE-DAX SPECIES ON WHALE FALLS  
Pradillon, Florence; Kawab, Maseru; Noda, Chilkayo; Fujikura, Katsunori; Fujiwara, Yoshihiro; Extremobiosphere Research Center, Japan Agency for Marine-Earth Science and Technology, Japan

17:15 17:30 COLONISATION EXPERIMENTS IN CHEMOSYNTHETIC ECOSYSTEMS IN THE DEEP-SEA: BIOLOGICAL AND ECOLOGICAL ASPECTS  
Gaudron, Sylvie, UMR 7138, University of Pierre et Marie Curie

17:30 17:45 THE TROPHODYNAMIC ROLE AND COLONISATION CAPACITY OF NEMATODE COMMUNITIES IN DIFFERENT ARCTIC DEEP-SEA ENVIRONMENTS  
Guillini, Katja, Biology, University of Ghent (Ugent), Belgium  
Van Oevelen, Dick, Department of Ecosystem Studies, NIOO-CEME, The Netherlands  
Schewe, Ingo; Soltwedel, Thomas; Alfred Wegener Institute, Germany  
Vanreusel, Ann, Biology, University of Ghent, Belgium

17:45 18:00 EVIDENCES THAT SOME OF THE SYMBIOTIC MUSSELS ASSOCIATED WITH CHEMOSYNTHETIC ORGANIC SUBSTRATES ARE UBIQUITOUS  
Lorion, Julien; Duperron, Sebastián; Samadi, Sarah; Systematic Adaptation Evolution, University Pierre and Marie Curie, France

18:00 18:15 CONNECTIVITY IN AN OCEANIC SEAMOUNTS SYSTEM: COMPARATIVE PHYLOGEOGRAPHY OF GASTROPODS WITH CONTRASTED REPRODUCTIVE STRATEGIES  
Castelin, Magalie; Samadi, Sarah; Bouchet, Philippe; Systematic Adaptation Evolution, Museum Auditorium National d'Histoire Naturelle, France

18:15 18:30 SIBOGLINIDAE IN THE GULF OF CADIZ - WHERE AND WHY  
Hilário, Ana, CESAM, University of Aveiro, Portugal  
Cunha, Marina, Dep. Biología, University of Aveiro, Portugal

## Polivalente auditorium

### Session 4.1 Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications

*Chairs: Adrianna Ianora; Angelo Fontana*

16:30 16:45 A NEW BIOMATERIAL FROM SPONGES: BIOSILICA (SUSTAINABLE PRODUCTION WITH VERSATILE APPLICATIONS)  
Müller, Werner EG; Schöder, Heinz C. Abteilung Angewandte Molekularbiologie. Institut für Physiologische Chemie, Universität. Germany.

16:45 17:00 THE EFFECTS OF DIATOM POLYUNSATURATED ALDEHYDES ON PLANKTON BIODIVERSITY AND FUNCTIONING  
Casotti, Raffaella; Balestra, Cecilia; Functional Ecology and Evolution Laboratory. Stazione Zoologica A. Dohrn. Napoli. Italy.  
Ribalet, François. School of Oceanography. University of Washington. Seattle. USA.  
Bastianini, Mauro. CNR-Istituto Biologia del Mare. Venice. Italy.  
Gasol, Josep M; Alonso-Sáez, Laura. Departament de Biologia Marina i Oceanografia. Institut de Ciències del Mar-CMIMA, CSIC. Barcelona. Spain.  
Lebaron, Philippe; Intertaglia, Laurent. Observatoire Océanologique de Banyuls. Banyuls-sur-mer. France.  
Vidoudez, Charles; Pohnert, Georg. Friedrich Schiller Universität. Jena. Germany.  
Miralto, Antonio. Functional Ecology and Evolution Laboratory. Stazione Zoologica A. Dohrn. Napoli. Italy.

17:00 17 15 NEW PERSPECTIVE SPECIES OF MOLLUSKS FOR MARI-CULTURE IN THE BLACK SEA (UKRAINIAN COST)  
Vyalova, Oksana; Scherban, Svetlana; Borodina, Aleksandra. Animal physiology and biochemistry. Institute of biology of the southern seas. Sevastopol. Crimea. Ukraine.

17:15 17 30 SECONDARY METABOLISM OF THE SPONGE GROUP HOMOSCLEROMORPHA : DIVERSITY AND VARIATION OF ITS EXPRESSION IN RELATION TO BIOTIC AND ABIOTIC FACTORS  
Ivanisevic, Julijana. Oceanology. Marine Station Endoume, Oceanology Center of Marseille, University of Mediterranean. France.  
Thomas, Olivier. Chemistry. University of Nice Sophia Antipolis. Nice. France.  
Ereskovsky, Alexander. Oceanology. Marine Station Endoume, Oceanology Center of Marseille, University of Mediterranean. France.  
Pérez, Thierry. Oceanology. Marine Station Endoume, Oceanology Center of Marseille, University of Mediterranean. France.

17:30 17 45 OCEAN BIODIVERSITY AS A RESERVOIR FOR PHARMACEUTICALS AND RESEARCH MODELS  
Boeuf, Gilles. Laboratoire Arago. University Pierre & Marie Curie, Paris6/CNRS. Banyuls-sur-mer. France.

## THURSDAY 13 november

### Morning

### Red sed auditorium

#### Session 1.5 Open ocean pelagic and benthopelagic diversity: patterns and monitoring

*Chairs : Odd Aksel Bergstad; Ann Bucklin; Tone Falkenhaus; Uwe Piatkowski.*

10:30 -10:45 PELAGIC BIODIVERSITY AND CLIMATE CHANGE.  
Beaugrand, Gregory. Centre National de la Recherche Scientifique (CNRS), Laboratoire d'Océanologie et de Géosciences, CNRS UMR LOG 8187, Station Marine,. Université des Sciences et Technologies de Lille B.P. 80. 62930 Wimereux , France  
Edwards, Martin; Lindley, John A. Sir Alister Hardy Foundation for Ocean Science, Citadel Hill The Hoe. Plymouth PL1 2PB, England

10:45 – 11:00 BIODIVERSITY AND ECOLOGICAL NICHES OF DEEP-SEA COPEPODS: VERTICAL PARTITIONING, DIETARY PREFERENCES AND DIFFERENT TROPHIC LEVELS MINIMIZE INTERSPECIFIC COMPETITION.  
Auel Holger; Laakmann Silke, Marine Zoology (FB 2), University of Bremen, Germany.

11:00 – 11:15 NEW FLAVORS OF GELATA: BIODIVERSITY OF DEEP-SEA AND OPEN-OCEAN CTENOPHORES, SIPHONOPHORES, AND MEDUSAE.  
Haddock Steven, MBARI, USA.  
Dunn C.W., Ecol.Evol.Biology, Brown Univ, Providence, USA.  
Pugh P.R., National Oceanographic Centre, Southampton / U.K.  
G.R. Harbison, Biology, WHOI, Woods Hole, USA.  
Helm R.R., Eckerd College, St. Petersburg, USA.  
Raskoff K.A., Biology, Monterey Peninsula College, Monterey, USA.

11:15 – 11:30 ANALYSIS OF MARINE HOLOZOOPLANKTON SPECIES DIVERSITY USING DNA BARCODES.  
Bucklin Ann; Jennings Robert; Ortmann Brian; Nigro Lisa, Department of Marine Sciences, University of Connecticut, USA.  
Copley Nancy, Department of Biology, Woods Hole oceanographic Institution, Woods Hole, USA.  
Wiebe Peter, Department of Biology, Woods Hole Oceanographic Institution, USA, New England.

11:30 – 11:45 DISTRIBUTION OF PELAGIC SHRIMPS (DECAPODA) ON THE MID-ATLANTIC RIDGE.  
Falkenhaug Tone; Hansen Hege Ø, Plankton Research group, Institute of Marine Research, Norway.  
Vereshchaka Alexander, Shirshov Institute of Oceanology, Russia.  
Willassen Endre, The Natural History Collections, University of Bergen, Bergen, Norway.  
Christiansen Marit E., Natural History Museum Auditorium, University of Oslo, Oslo, Norway.

11:45 – 12:00 COMPARATIVE BIODIVERSITY OF MYCTOPHIDAE IN PELAGIC ZONE OF THE TROPICAL OCEAN  
Tsarin Sergey, Biophysical ecology, Institute of Biology of the Southern Seas (IBSS), National Academy of Sciences of Ukraine, Ukraine.  
Beloivanenko Tamara, Ichthyology, Institute of Biology of the Southern Seas (IBSS), National Academy of Sciences of Ukraine.

12:00 – 12:15 PLANKTON DIVERSITY IN THE TROPICAL COASTAL WATERS OF KODIAKKARAI (POINT CALIMERE), INDIA.  
Perumal Pachiappan; RAJKUMAR Mayalagu; Natarajan, Centre of Advanced Study in Marine Biology, ANNAMALAI UNIVERSITY, India.

12:15 – 12:30 THE USE OF MICROARRAY FOR MONITORING SPATIAL AND TEMPORAL CHANGES IN BIODIVERSITY IN THE PICOPLANKTONIC.  
Medlin Linda; Gescher Christine; Mefies katja, Department of biological oceanography, Alfred Wegener Institute, Germany.

12:30 – 12:45 INFLUENCE OF THE MID ATLANTIC RIDGE ON THE DISTRIBUTION AND ABUNDANCE OF EUPHAUSIIDS IN THE OPEN ATLANTIC OCEAN.  
Letessier Tom; Brierley Andrew, School of Biology, University of St Andrews, UK.

12:45 – 13:00 RELATIONSHIPS IN HOLOZOOPLANKTON, GENETIC AND MORPHOLOGICAL DIVERSITY, EXAMPLES FROM CHAETOGNATHA.  
Pierrot-Bults Annelies, Marine Plankton, Zoological Museum Auditorium Amsterdam, University of Amsterdam, The Netherlands.  
Jennings Robert, University of Massachusetts, Boston, USA.

13:00 – 13:15 DIVERSITY HOTSPOTS OF SHARKS, RAYS AND CHIMAEERAS IN THE SOUTHWEST ATLANTIC.  
Lucifora Luis; García Verónica, Biology, Dalhousie University, Canada.  
Menni Roberto, División Zoología Vertebrados, Museo de La Plata and Consejo Nacional de Investigaciones Científicas y Técnicas, La Plata, Argentina.

13:15 -13:30 GLOBAL PATTERNS OF RICHNESS AND THE ECOLOGICAL CONSEQUENCES OF DECLINE FOR OCEANIC PREDATORY FISHES.  
Boyce Daniel, Biology, Dalhousie University, Canada.

## Morning

### Auditorium museum

#### Session 1.8 Marine biogeography and comparative phylogeography: joining paleontologists, taxonomists, ecologists and geneticists

Chairs : Anne Chenail; Filipe Alberto.

10:30 – 10:45 SHUFFLING OF NATIVE GENETIC DIVERSITY IN INTRODUCED SPECIES: FROM EVIDENCES TO CONSEQUENCES.  
Viard, Frédérique, Adaptation & Diversité en Milieu Marin (UMR 7144 CNRS UPMC), Station Biologique de Roscoff, France.

10:45 – 11:00 WHAT CAN COMPARATIVE PHYLOGEOGRAPHIES TELL US ABOUT SOUTHERN AFRICA'S DYNAMIC OCEANIC PAST?  
Von der Heyden Sophie, Evolutionary Genomics Group, Department of Botany and Zoology, Stellenbosch University, South Africa.

11:00 -11:15 CONCORDANT PHYLOGEOGRAPHIC PATTERNS AMONG VARIOUS SPECIES SUGGEST ANCIENT ORIGIN OF THE 30 S MARINE BIOGEOGRAPHIC TRANSITION.  
Faugeron Sylvain; Brante Antonio; Castilla Juan Carlos; Fernandez Miriam; Navarrete Sergio; Poulin Elie, Ecologia, Facultad Ciencias Biologicas. Pontificia Universidad Católica de Chile, Chile.  
Cárdenas Leyla, Departamento de Ecología, Universidad Austral, Valdivia, Chile.  
Haye Pilar, CEAZA, Universidad Católica del Norte, Coquimbo, Chile.  
Valero Myriam; Viard Frédérique, UMR7144, CNRS, Roscoff, France.  
Wares John, Department of Genetics, State University of Georgia, Athens, USA.

11:15 – 11:30 SCANNING THE GENOME OF THE PACIFIC CUPPED OYSTER, CRASSOSTREA GIGAS, FOR ADAPTIVE DIFFERENTIATION DURING GEOGRAPHIC RANGE EXPANSION.  
Rohfritsch Audrey; Boudry Pierre, Laboratoire de génétique et pathologie, Ifremer, France.  
Bierne Nicolas, Laboratoire Biologie Intégrative, ISEM, Sète, France.  
Heurtebise Serge, Laboratoire génétique et pathologie, Ifremer, Plouzane, France.  
Lapegue Sylvie, Laboratoire génétique et pathologie, Ifremer, La Tremblade, France.

11:30 – 11:45 SPATIAL VARIATION OF THE STRIPED SEABREAM (LITHOGNATHUS MORMYRUS) USING A COMBINATION OF GENETIC, ECOLOGICAL AND LIFE-HISTORY APPROACHES.  
Sala Bozano Maria; Mariani Stefano, School of Biological & Environmental Science, University College Dublin, Ireland.  
Kermaier Valerio, Unit of Evolutionary Biology/Systematic Zoology, University of Postdam, Postdam, Germany.

11:45 – 12:00 USING MOLECULAR DATA TO INTERPRET ECOLOGICAL GRADIENTS: AN INTERFACE BETWEEN GENETICS AND ECOLOGY.  
Vasileiadou Katerina; Sarropoulou Elena; Tsiggenopoulos Kostas, IMBG, HCMR, Crete.  
Reizopoulou Sofia; Simboura Nomiki, Oceanography, HCMR, Athens, Greece.  
Nicolaidou, Artemis, Biology, University of Athens, Athens, Greece.  
Orfanidis Sotiris; Fisheries Research Institute, National Agricultural Research Foundation, Kavala, Greece.  
Kotoulas Giorgios; Arvanitidis Christos, IMBG, HCMR, Heraklion, Greece.

12:00 – 12:15 COMPARATIVE PHYLOGEOGRAPHY OF THREE FUCUS SPECIES (HETEROKONTOPHYTA; FUCACEAE) WITH CONTRASTING MATING SYSTEMS AND HABITATS.  
Hoarau Galice; Coyer James; Hogerdijk Bas, Marine Benthic Ecology and Evolution, CEES, University of Groningen, Netherlands.  
Costa Joana; Serrao Ester, CCMAR-CIMAR, University of Algarve, Faro, Portugal.  
Billard Emmanuelle; Valero Myriam, Evolution et Génétique des Populations Marines, Station Biologique de Roscoff, Roscoff, France.  
Johannesson Kerstin, Marine Ecology, Tjärnö Marine Biological Laboratory, Strömstad, Sweden.  
Stam Wytze, MarBEF, University of Groningen, Haren, The Netherlands.

12:15 – 12:30 GENETIC AND BACTERIAL DIVERSITY OF THE ENDANGERED SPONGE SPONGIA AGARICINA.  
Noyer Charlotte, Molecular Biology, Integrin Advanced Biosystems, Scotland, UK.  
Becerro Mikel A.; Uriz Maria Jesus, Aquatic Ecology, Center for Advanced Studies of Blanes (CEAB, CSIC), Blanes, Spain.  
McKenzie Douglas, Integrin Advanced Ecosystems, Oban Argyll, Scotland.

12:30 – 12:45 WHY IS THERE A BIOGEOGRAPHIC TRANSITION AT 30 S ALONG THE CHILEAN COAST? A PHYLOGEOGRAPHIC STUDY OF THE KELP *LESSONIA NIGRESCENS*.  
Tellier, Florence. Station Biologique de Roscoff / Center for Advanced Studies of Ecology and Biodiversity, LIA DIAMS. CNRS-UPMC / Pontificia Universidad Catolica de Chile. France/Chile.  
Valero, Myriam. Station Biologique de Roscoff, LIA DIAMS. CNRS-UPMC. Roscoff. France  
Faugeron, Sylvain. Center for Advanced Studies of Ecology and Biodiversity, LIA DIAMS. Pontificia Universidad Catolica de Chile. Santiago. Chile.

12:45 – 13:00 ORIGIN OF SOUTHERN HEMISPHERE MYTILUS (*MYTILUS*, *BIVALVIA*) POPULATIONS: CONTRASTING PATTERNS INFERRED FROM MITOCHONDRIAL AND NUCLEAR DNA.  
Gerard Karin, Center d'Océanologie de Marseille, Université de la Méditerranée, France.  
Bierne Nicolas, CNRS, Sète, France.  
Borsa Philippe, IRD, Noumea, New Caledonia.  
Chenuil Anne; Féral Jean-Pierre, Centre d'Océanologie de Marseille, CNRS, Marseille, France.

13:00 – 13:15 DISTRIBUTIONAL AND DEMOGRAPHIC CONSEQUENCES OF PLEISTOCENE GLACIATIONS FOR A MARINE DEMERSAL FISH.  
Larmuseau Maarten, Biology, Katholieke Universiteit Leuven- Laboratory of Animal Diversity and Systematics, Belgium.  
Van Houdt Jeoren K.J., Biology, Royal Museum Auditorium of Middle Africa, Teruren, Belgium.  
Helleman Bart, Biology, Katholieke Universiteit Leuven-Laboratory of Animal Diversity and Systematics, Leuven, Belgium.  
Guelinckx Jef, Biology, Katholieke Universiteit Leuven-Laboratory of Aquatic Ecology and Evolutionary Biology, Leuven, Belgium.  
Volckaert Filip A.M., Biology, Katholieke Universiteit Leuven-Laboratory of Animal Diversity and Systematics, Leuven, Belgium.

13:15 -13:30 RECONSTRUCTING THE EVOLUTIONARY AND DEMOGRAPHIC HISTORY OF TWO KELP SPECIES.  
Valero Myriam; Destombe Christophe; Daguin Claire; Oppligez Valeria; Lamy Thomas, UMR CNRS-UPMC 7144, Station Biologique de Roscoff, France.

## Polivalente room

### Session 2.5 Marine bioinvasions and ecosystem functioning

*Chairs : Sergej Olenin; Anna Occhipinti Ambrogi; Stephan Gollasch.*

10:30 – 10:45 PATTERNS AND IMPACTS OF BIOINVASIONS IN EUROPEAN COASTAL SEAS  
Olenin, Sergej. Didziulis, Viktoras Coastal Research and Planning Institute. Klaipeda University. Klaipedia. Lithuania.  
Galil, Bella. National Institute of Oceanography. Haifa. Israel.  
Gollasch, Stephan. GoConsult. Hamburg. Germany.  
Minchin, Dan. Marine Organism Investigations. Ballina Killaloe, Co Clare. Ireland.  
Panov, Vadim. Faculty of Geography. St. Petersburg University. Russia.  
Cowx, Ian, Nunn. Andy D. International Fisheries Institute. University of Hull. UK.  
Gherardi, Francesca. Tricarico, Elena. Dip. Biologia Animale e Genetica. Università degli Studi di Firenze. Italy.  
Miossec, Laurence. IFREMER. La Tremblade. France.  
Occhipinti Ambrogi, Anna. Dip. Ecologia del Territorio. Università degli Studi di Pavia. Italy.

10:45 – 11:00 GLOBAL CHANGE AND ALIEN SPECIES IN THE MEDITERRANEAN SEA  
Occhipinti Ambrogi, Anna. Dip. Ecologia del Territorio. Università degli Studi di Pavia. Italy.  
Galil, Bella. National Institute of Oceanography. Haifa. Israel

Occhipinti Ambrogi, Anna. Dip. Ecologia del Territorio. Università degli Studi di Pavia. Italy  
11:00 – 11:15 HOW DO CHANGES IN PREDATOR DIVERSITY AFFECT ECOSYSTEM FUNCTIONING?  
O'Connor, Nessa. School of Biology and Environmental Science. University of College Dublin. Ireland.

## Lunch

### Red sed Auditorium

#### Session 2.1 Coastal marine benthic biodiversity and ecosystem process under uncertain environmental futures

*Chairs : Martin Solan; Dave Paterson; Dave Raffaelli; Piran Whit*

15:00 -15:15 BIODIVERSITY EFFECTS ON ECOSYSTEM FUNCTIONING: HOW RELEVANT ARE EXPERIMENTS TO THE REAL WORLD?  
Duffy J. Emmett, The College of William and Mary, Virginia Institute of Marine Science, 23062-1346.

15:15 – 15:30 HOW DO THE STRENGTH AND IMPORTANCE OF POSITIVE INTERACTIONS CHANGE WITH ENVIRONMENTAL STRESS?  
Johnson Gareth; Hiddink Jan Geert; Kaiser Michel Joseph, Coastal Resource Ecology and Management, School of Ocean Sciences, College of Environmental Sciences, Bangor University, Wales.  
Ramsay Kisten, Countryside Council of Wales, Bangor, Wales.

15:30 -15:45 DEAD ZONES: A MAJOR BLOW FOR BIODIVERSITY IN SHALLOW COASTAL SEAS  
Riedel, Bettina. Stachowitsch, Michael. Department of Marine Biology. University of Vienna. Austria.  
Zuschin, Martin. Department of Paleontology. University of Vienna. Austria.  
Haselmair, Alexandra. Department of Marine Biology. University of Vienna. Austria.

15:45 – 16:00 EFFECTS OF AQUATIC PLANT SPECIES RICHNESS ON BENTHIC ECOSYSTEM STRUCTURE AND FUNCTION.  
Boström Christoffer; Gustafsson Camilla; Salo Tiina, Environmental and Marine Biology, Åbo Akademi University, Finland.

## Auditorium museum

### Session 1.4 Discoveries from integrated data systems

*Chairs: Ward Appeltans; Mark J. Costello; Edward Vanden Berghe*

15:00 – 15:15 ANALYSIS OF SPECIES RICHNESS PATTERNS AS APPARENT FROM OBIS DATA.  
Vanden Berghe, Edward, OBIS, USA.

15:15 – 15:30 OCEANLIFE: A SCALABLE INFORMATION INTEGRATION FRAMEWORK FOR MARINE BIODIVERSITY AND ECOLOGY.  
Stocks Karen; Condit Chris; Qian Xufei; Gupta Amarnath, San Diego Supercomputer Center, University of California, San Diego, USA.

15:30 -15:45 ADVANCING MARINE HABITAT CLASSIFICATIONS THROUGH A NEW GLOBAL TERRAIN MAP TO INTEGRATE ECOLOGY IN BIODIVERSITY DATA SYSTEMS.  
Costello Mark, EcoServe and University of Auckland, Ireland.

15:45 – 16:00 LARGE-SCALE PATTERNS IN HARPACTICOID COPEPOD DIVERSITY AND DISTRIBUTION.

Garliiska Lesya, Ecology of Marginal Communities, Odessa Branch, Institute of Biology of Southern Seas, NASU, Ukraine.

Chertoprud Elena; Azovsky Andrey, Dept of Hydrobiology, Biological Faculty, Moscow State University, Moscow, Russia.

Kondar Daria, Coastal Ecology Laboratory, Shirshov Institute of Oceanology, RAS, Moscow, Russia.

## Polivalente room

### Session 3.3 Fish and fisheries: genes to global market

*Chairs : Reinhold Hanel; Mikko Heino*

15:00 – 15:15 EFFECT OF RECENT CLIMATIC CHANGES ON ABUNDANCE OF SOLE, *SOLEA SOLEA*, IN THE KATTEGAT AND BELT SEA.

MacKenzie Brian; Else Nielsen, National Institute for Aquatic Resources, Technical University of Denmark, Denmark.

15:15 – 15:30 GENETIC VARIATION AT SNP LOCI ACROSS WILD POPULATIONS OF THE EUROPEAN SEA BASS.

Souche Erika; Hellemans Bart, Biology, Katholieke Universiteit Leuven- Laboratory of Animal Diversity and Systematics, Belgium.

Bargelloni Luca, Public Health, Comparative Pathology, and Veterinary Hygiene, University of Padova, Padova, Italy.

Guinand Bruno, Institut des Sciences de l'Evolution CNRS-Université de Montpellier 2, Montpellier, France.

Bonhomme François, Institut des Sciences de l'Evolution CNRS-Université de Montpellier 2, Montpellier, France.

Volckaert Filip, Biology, Katholieke Universiteit Leuven-Laboratory of Animal Diversity and Systematics, Leuven, Belgium.

15:30 -15:45 EXPLOITATION-DRIVEN EVOLUTION AND MARINE BIODIVERSITY.

Heino Mikko, Department of Biology, University of Bergen, Norway.

Dieckmann Ulf, Evolution and Ecology Program, International Institute for Applied Systems Analysis, Laxenburg, Austria.

15:45 – 16:00 LIVING ON THE EDGE – ISOLATED POPULATIONS OF A SMALL PELAGIC COLDWATER MARINE FISH SPECIES TRAPPED IN THE NORTHERN MEDITERRANEAN.

Hanel Reinhold; Debes Paul, Marine Ecology, Leibniz Institute of Marine Sciences, Germany.

## COFFEE BREAK

## Red sed auditorium

### Session 2.1 Coastal marine benthic biodiversity and ecosystem process under uncertain environmental futures

*Chairs : Martin Solan; Dave Paterson; Dave Raffaelli; Piran Whit*

16:30 – 16:45 THE ROLE OF MACROFAUNA IN THE FUNCTIONING OF A SEA FLOOR: IS THERE ANY SEASONAL, DENSITY OR FUNCTIONAL IDENTITY EFFECT?

Braeckmand Ulrike; Vincx Magda, Marine Ecology, Ghent University, Belgium.

Provoost Pieter, Ecosystem studies, NIOO-CEME, Yerseke, The Netherlands.

Gribsholt Britta, Department of Biology, Marine Biological Laboratory, Helsingør, Denmark.

Middelburg Jack; Soetaert Karlina, Ecosystem studies, NIOO-CEME, Yerseke, The Netherlands.

Vangansbeke Dirk, Vanaverbeke Jan, Marine Biology, Ghent University, Ghent, Belgium.

16:45 – 17:00 MARINE BIODIVERSITY-ECOSYSTEM PROCESSES UNDER UNCERTAIN ENVIRONMENTAL FUTURES.

Bulling Mark; Hicks Natalie; Solan Martin, Oceanlab, University of Aberdeen, Scotland.

Paterson David, Gatty Marine Laboratory, University of St. Andrews, Fife, Scotland.

Raffaelli Dave, Environment Department, University of York, York, England.

17:00 – 17:15 THRESHOLDS OF HYPOXIA FOR MARINE BENTHIC COMMUNITIES.

Vaquer-Sunyer Raquel; Duarte Carlos, Coastal Ecology, IMEDEA, Spain.

17:15 – 17:30 INTERTIDAL ENVIRONMENTAL STRESS GRADIENTS AND SEAWEED CANOPIES AS DETERMINANTS OF SPECIES DIVERSITY IN TROPHIC GROUPS.

Scrosati Ricardo; Van Genne Barbara; Watt Cortney, Department of Biology, Saint Francis Xavier University, Canada.

17:30 – 17:45 COMPARISON OF BIODIVERSITY AND TROPHODYNAMIC FUNCTION OF COASTAL FOOD WEBS ALONG THE EUROPEAN COAST - A NETWORK ANALYSIS APPROACH.

Asmus Harald; Asmus Ragnhild, Coastal Ecology, Alfred Wegener Institute, Germany.

Sokolowski Adam; Wolowicz Maciej, Institute of Oceanography, University of Gdansk, 81-378 Gdynia, Poland.

Razinkovas Arturas; Gasiunaitė Zita; Lesutienė Jurate, Coastal Research and Planning Institute, University of Klaipeda, LT 92294 Klaipeda, Lithuania.

Van Oevelen Dick; Hummel Herman, Centre for Estuarine and Coastal Ecology, Netherlands Institute of Ecology 4401 NT Yerseke, The Netherlands.

Cardigos Frederico; Colaço Ana; Serrão Santos Ricardo, DOP - University of the Azores, University of the Azores, 9901 612 Horta, Portugal.

Richard Pierre; Niqil Nathalie, Centre de Recherche sur les Ecosystèmes Marins et Aquacoles (CRELA), France.

Gremare Antoine; Carlier Antoine, Observatoire Océanologique de Banyuls, Laboratoire d'Océanographie Biologique, F66651 Banyuls-sur-Mer, France.

17:45 – 18:00 EFFECTS OF BIODIVERSITY AND HABITAT STRUCTURE ON ECOSYSTEM PROCESSES.

Godbold Jasmin; Solan Martin, Oceanlab, University of Aberdeen, Scotland.

Bulling Mark, Environment Department, University of York, York, England.

18:00 – 18:15 ECOSYSTEM ENGINEERING EFFECTS ON BIODIVERSITY.

Bouma Tjeerd, E. Cacabelos, F.G. Brun; Ysebaert, T. Netherlands Institute of Ecology (NIOO-KNAW)

Centre for Estuarine and Marine Ecology . Yerseke. The Netherlands.

Folkard, A. Department of Geography. Lancaster Environment Centre. Lancaster University. UK.

Reise, K. Alfred Wegener Institute (AWI) for Polar and Marine Research. Wadden Sea Station Sylt. Germany.

Olenin, S. Coastal Research and Planning Institute. Klaipeda University. Klaipeda, Lithuania

18:15 – 18:30 BIODIVERSITY, TRAIT DYNAMICS AND ECOSYSTEM PROCESSES UNDER GRADUAL AND CATASTROPHIC DISTURBANCE: A MODEL ANALYSIS

Mathijis, Vos; Soetaert, Karlina, Heip, Carlo; Middelburg, Jack. Ecosystem Studies. Netherlands Institute of Ecology, CEME. Yerseke. The Netherlands

Herman, Peter. Spatial Ecology. Netherlands Institute of Ecology, CEME. Yerseke. The Netherlands

## Auditorium museum

### Session 1.4 Discoveries from integrated data systems

*Chairs : Ward Appeltans; Mark J. Costello; Edward Vanden Berghe*

16:30 – 16:45 COMPARISON OF THE PERFORMANCES OF TWO BIOLOGICAL INDICES BASED ON A SOFT-BOTTOM MACROZOOBENTHOS PAN-EUROPEAN DATABASE.

Grémare Antoine, Station Marine d'Arcachon, University Bordeaux 1, France.

16:45 – 17:00 OBIS-SEAMAP: DEVELOPING A BIOGEOGRAPHIC RESEARCH DATA COMMONS FOR THE ECOLOGICAL STUDIES OF MARINE MAMMALS, SEABIRDS, AND SEA TURTLES.

Halpin Patrick, Duke University Marine Lab, Duke University, USA.

17:00 – 17:15 DATA INTEGRATION AND INTEROPERABILITY IN THE BIOLOGICAL AND CHEMICAL OCEANOGRAPHY DATA MANAGEMENT SYSTEM AND CMARZ.

Wiebe Peter; Groman, Robert; Allison, Dicky; Biology, Woods Hole Oceanographic Institution, USA.

Chandler, Cynthia; Glover, David. Marine Chemistry & Geochemistry. Woods Hole Oceanographic Institution, USA.

17:15 – 17:30 OBIS FOR BEGINNERS.

Grassle J. Frederick; Vanden Berghe Edward, Marine and coastal sciences, Institute of Marine and Coastal Sciences, Rutgers, The State University of New Jersey, USA.

## Polivante room

### Session 3.3 Fish and fisheries: genes to global market

*Chairs : Reinhold Hanel; Mikko Heino*

16:30 – 16:45 SEASCAPE GENETICS IN ANTARCTIC FISH: UNCOUPLING OF PHYSICAL AND BIOLOGICAL PROCESSES.

Carvalho Gary; Rock Jennifer, School of Biological Sciences, Environment Centre Wales, Bangor University, UK.

Young Emma; Murphy E; Meredith Mike; Thorpe S; Belchier Mark; Collins M; Everson I; Rodhouse Paul, British Antarctic Survey, Cambridge, UK.

Hutchinson Bill; School of Biological Sciences, University of Hull, Hull, UK.

Hauser Lorenz, University of Washington, Seattle, USA.

16:45 – 17:00 RECENT CHANGES IN NORTHERN ADRIATIC ICHTHYOFAUNA: EXPERIENCES FROM SLOVENIA.

Mavric Borut; Lipej Lovrenc, Marine Biology Station Piran, National Institute of Biology, Slovenia.

17:00 – 17:15 THE DISTRIBUTION AND RELATIONSHIPS BETWEEN HAKE (*MERLUCCIIUS MERLUCCIIUS LINNAEUS*, 1758) AND COD (*MERLANGIUS MERLANGIUS LINNAEUS*, 1758) IN THE SEA OF MARMARA (1990-1995).

Demirel Nazil; Yuksek Ahsen; Okus Erdogan; Uysal Ayhan; Demirel Nazil, Physical Oceanography and Marine Biology, Institute of Marine Sciences and Management, University of Istanbul, 90 212 4400000 / 26034.

## Friday November 14

### Morning

## Red Sea Auditorium

### Session 2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships

## versity-Ecosystem Functioning Relationships

*Chairs: Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi*

10:30 10:45 MONITORING LARGE SCALE MARINE ECOSYSTEM CHANGES – STRATEGY AND ITS APPLICATION

Shirayma, Yoshihisa, Seto Marine Biological Laboratory, Field Science Education and Research Center, Japan

10:45 11:00 DISCRIMINATING BEF RELATIONSHIPS FROM EMPIRICAL STUDIES

Paterson, David; School of Biology, University St Andrews, Scotland  
Benedetti-Cecchi, Lisandro; Dipartimento di Scienze dell 'Uomo e dell 'Ambiente, University Pisa, Italy

11:00 11:15 RELATIONSHIPS BETWEEN BIODIVERSITY AND THE STABILITY AND FUNCTIONING OF MARINE ECOSYSTEMS: EXPERIMENTAL COMPARISONS AMONG HABITATS AT A EUROPEAN SCALE

Crowe, Tasman, School of Biology and Environmental Science, University College Dublin, Ireland

Benedetti Cecchi, Lisandro; Bulleri, Fabio; Dipartimento di Biologia, Italy

Cusson, Mathieu, Université du Québec à Chicoutimi, Canada

Jenkins, Stuart, School of Ocean Sciences, Bangor University, UK

Aspden, Rebecca; Paterson, David. School of Biology. University of St. Andrews. St. Andrews. Scotland.

Terrados, Jorge. Instituto Mediterráneo de Estudios Avanzados (CSIC-UIB). Esporles. Spain.

11:15 11:30 PAN-EUROPEAN PATTERNS IN MARINE PROPAGATION

Philippart, Catharina, Marine Ecology, Royal NIOZ, The Netherlands

Amaral, Ana, Universidade do Algarve, Portugal

Van Bleijswijk, Judith, Biological Oceanography, Royal NIOZ, The Netherlands

11:30 11:45 PATCH HETEROGENEITY AND DISPERSAL LIMITATION CAUSE A NEGATIVE CORRELATION BETWEEN REALIZED LOCAL DIVERSITY AND COMMUNITY PRODUCTIVITY

Matthiessen, Birte, Marine Ecology, Institute of Marine Sciences (IfM-GEOMAR), Germany

11:45 12:00 COMPLEX POSITIVE CONNECTIONS BETWEEN FUNCTIONAL GROUPS ARE REVEALED BY NEURAL NETWORK ANALYSIS OF ECOLOGICAL TIME-SERIES

Thrush, Simon; Coco, Giovanni; Hewitt, Judi; Coastal Ecosystems, National Institute of Water and Atmospheric Research, New Zealand

12:00 12:15 SPECIES DIVERSITY PATTERNS ON ROCKY SHORES IN UK AND IRELAND: THE INFLUENCE OF PELAGIC PRIMARY PRODUCTIVITY AND TEMPERATURE

Burrows, Michael; Harv, Robin; Robb, Linda; Poloczanska, Elvira; Ecology, Scottish Association for Marine Science, UK

Moore, Pippa; Leaper, Rebecca; Marine Biological Association of the United Kingdom, UK

Kendall, Michael, Plymouth Marine Laboratory, UK

Simkanin, Christina; Department of Life Sciences, Galway-Mayo Institute of Technology, Ireland

Anne Marie, Power, Martin Ryan Institute, National University of Ireland –Galway, Ireland

Davenport, John.; Myers, Alan; Zoology, Ecology and Plant Science, University College Cork, Ireland

Mc Grath, David, Department of Life Sciences, Galway-Mayo Institute of Technology, Ireland

Hawkins, Stephen, School of Ocean Sciences, Bangor University, UK

12:15 12:30 THE EFFECT OF INCREASED RAINFALL ON MEIOFAUNA ASSEMBLAGES: IS THERE A UNIFORM RESPONSE TO ENVIRONMENTAL PERTURBATION?

Ferrero, Timothy; Barnes, Natalie; Zoology, The Natural History Museum Auditorium, UK

Adão, Helena; Portugal, Rute. Biology Department, University of Evora, Portugal  
Compinas-Bezerra, Tania; Van Gansbeke, Dirk; Steyaert, Maaike; Vanaverbeke, Jan. Department of Biology, Ghent University, Belgium

Dgras, Aleksander; Urba-Malinga, Barbara. Department of Fisheries Oceanography and Marine Ecology, Polish Sea Fisheries Institute, Poland  
Kuhnert, Jutta; Veit-Köhler, Gritta. German Centre for Marine Biodiversity Research, Senckenberg Research Institute, Germany  
Lampadariou, Nikolaos, Institute of Oceanography, Hellenic Centre for Marine Research, Greece

Schratzberger, Michaela, Lowestoft Laboratory, Centre for Environment, Fisheries & Aquaculture Science, UK

Whomerley, Paul, Burnham Laboratory, Centre for Environment, Fisheries & Aquaculture Science

12:30 12:45 BIODIVERSITY PATTERNS OF MARINE INVERTEBRATE METACOMMUNITIES IN THE MEDITERRANEAN SEA.

Moritz, Charlotte; Loeuille, Nicolas; Guarini, Jean-Marc; Biological Oceanography, UPMC Univ Paris 06 CNRS, France

Guizie, Katell, Biological oceanography, UPMC Univ Paris 06 CNRS, France

12:45 13:00 GLOBAL TRENDS IN INTERTIDAL MACROALGAL BIODIVERSITY

Konar, Brenda; Chenelot, Heloise, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, USA

Cruz, Juan, Universidad Simon Bolivar, Venezuela

Edwards, Matt, San Diego State University, USA

Iken, Katrin, University of Alaska Fairbanks, USA

Lindstrom, Sandra, University of British Columbia, Canada

Milne, Rebecca, Huntsman Marine Science Centre, Canada

Miloslavich, Patricia, Universidad Simón Bolívar, Venezuela

Pohle, Gerhard, Huntsman Marine Science Centre, Canada

Riosmena-Rodriguez, Rafael, Universidad Autonoma de Baja California Sur, Mexico

Saunders, Gary, University of New Brunswick, Fredericton, Canada

13:00 13:15 SPATIAL PATTERNS AND TEMPORAL VARIATIONS IN MACROBENTHOS COMPOSITION IN THE SOUTHERN BALTIC SEA AND POSSIBLE IMPACT ON ECOSYSTEM FUNCTIONING

Schiedek, Doris; Arctic Environment, National Environmental Research Institute, University of Aarhus, Denmark

Zettler, Michael L; Glockzin, Michael. Biological Oceanography, Baltic Sea Research Institute, Germany

13:15 13:30 ON LINKING ECOSYSTEM STRUCTURE AND FUNCTION IN THE INTERTIDAL.

Bendell, Leah, Biological Sciences, Simon Fraser University, Canada

## Museum Auditorium

### Session 4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, and Scientific Knowledge Work Together

Chairs: Jake Rice; Heye Rumohr

10:30 10:45 MARINE BIODIVERSITY: THE SCIENCE NEEDED TO SUPPORT THE CURRENT POLICY AGENDA

Rice, Jake. Fisheries and Oceans. Government of Canada. Ottawa. Canada.

10:45 11:00 SCIENTIFIC CRITERIA FOR CONSERVATION AND SUSTAINABLE USAGE OF MARINE BIODIVERSITY IN CANADA'S OCEANS: THE CANADIAN HEALTHY OCEANS NETWORK

Snelgrove, Paul, Schneider, David. Ocean Sciences Centre, Memorial University of Newfoundland, Canada

Archambault, Philippe, Institut de Sciences de la Mer (ISMER), Université du Québec à Rimouski, Canada

Juniper, Kim; Tunnicliffe, Verena. School of Earth & Ocean Sciences and Department of Biology, University of Victoria, Canada

Lawton, Peter; McKindsey, Chris; Pepin, Pierre. Department of Fisheries & Oceans, Government of Canada, Canada

Metaxas, Anna, Oceanography Department, Dalhousie University, Canada  
11:00 11:15 CONFOUNDING EFFECTS OF MPAS: THE NEED FOR EXPERIMENTAL MANAGEMENT

Kaiser, Michel, School of Ocean Sciences, Bangor University, UK

Stewart, Gavin; Pullin, Andrew; School of Environment and Natural Resources, Bangor University, Wales

11:15 11:30 PRACTICAL APPLICATION OF SCIENTIFIC CRITERIA FOR SELECTION OF MARINE PROTECTED AREAS

Hiscock, Keith; Jackson, Emma; Langmead, Olivia; Marine Biodiversity & Conservation Science Programme, Marine Biological Association, UK

11:30 11:45 CONSERVATION OF BIODIVERSITY IN URBANIZED ESTUARIES BENEFITS FROM INNOVATIVE COLLABORATIONS BETWEEN SCIENCE AND MANAGEMENT

Chapman, Maura G., Centre for Research on Ecological Impacts of Coastal Cities, The University of Sydney, Australia

11:45 12:00 BIOLOGICAL VALUATION: GUIDELINES FOR A TRANS-PARANT AND GENERALLY APPLICABLE PROTOCOL FOR THE MARINE ENVIRONMENT

Degraer, Steven; Derous, Sofie; Rabaut, Marijn; Vincx, Magda. Marine Biology Section, Biology Department, Ghent University, Belgium

Courtens, Wouter; Stienen, Eric W.M.; Paelinckx, Desiré. Institute of Nature and Forestry Research, Belgium

Deckers, Pieter; Deneudt, Klaas; Hostens, Kris; Moulart, Ine; Flanders Marine Institute, Belgium

Roff, John C., Environmental Science, Acadia University, Canada

Van Lancker, Vera; Verfaillie, Els; Renard Centre of Marine Geology, Ghent University, Belgium

Degraer, Steven, Marine Biology Section, Biology Department, Ghent University, Belgium

12:00 12:15 PICKING A WAY FORWARD: FITTING TRADITIONAL SHELLFISH GATHERING INTO A MARINE PROTECTED AREA

Johnson, Mark, School of Biological Sciences, Queen's University Belfast, UK

12:15 12:30 ARTIFICIAL NEURAL NETWORKS AS A TOOL FOR MODELLING AZOREAN FISHERIES

Gil, Fabíola, Department of Agricultural Sciences, University of Azores, Portugal  
Pinho, Mário; Dentinho, Tomaz; Department of Oceanography and Fisheries, University of Azores, Portugal

12:30 12:45 INFORMING TARGETS BY COMMUNICATING CLIMATE CHANGE SCIENCE TO POLICY MAKERS: THE MARINE CLIMATE CHANGE IMPACTS PARTNERSHIP.

Frost, Matthew, Marine Environmental Change Network, Marine Biological Association of the UK, UK

Dye, Stephen; Buckley, Paul; MCCIP Secretariat, CEFAS, UK

12:45 13:00 BIOMARES, A LIFE PROJECT TO RESTORE AND MANAGE THE BIODIVERSITY OF LUIZ SALDANHA MARINE PARK

Cunha, Alexandra; Erzini, Karim; Serrao, Ester; CCMAR, Edifício 7, University of Algarve, Portugal

Gonçalves, Emanuel, ISPA, Portugal

Henriques, Miguel, PNA, ICNB, Portugal

Henriques, Victor, IPIMAR, INRB, Portugal

Marbá, Núria; Duarte, Carlos; IMEDEA, CSIC, Spain

13:00 13:15 MOBIDIC - MONITORING INTERTIDAL BIODIVERSITY WITH SCHOOLS

Sousa Pinto, Isabel; Vieira, Raquel, Coastal Biodiversity Laboratory, Centre for

Marine and Environmental Research, Portugal

13:15 13:30 GRAVEL SEEDING - A SUITABLE TECHNIQUE FOR RESTORATION OF THE SEABED FOLLOWING MARINE AGGREGATE DREDGING?  
Cooper, Keith; Ware, Suzanne; Vanstaen, Koen; Barry, Jon. Marine Ecology Team, CEFAS, UK

## Polivalente Auditorium

### Session 4.4 Emerging paradigms in coastal research and related management and policy implications

*Chairs: Natarajan Ishwaran; Patricio Bernal; Jerry Melillo; Maria-Lourdes Palomares*

10:30 10:45 HUMAN IMPACTS ON COASTAL AND SHELF ECOSYSTEMS: SMALL SCALE FISHERIES AS A PROBLEM AND A SOLUTION  
Pauly, Daniel, Fisheries Centre, University of British Columbia, Canada

10:45 11:00 SQUEEZED OUT: SANDY BEACHES AS THREATENED FUNCTIONAL ECOSYSTEMS  
Schoeman, Dave; Smit, AJ; Scharler, Ursula; Muir, Dave; Govender, Natasha; Harris, Linda; School of Biological and Conservation Sciences, University of KwaZulu-Natal, South Africa  
Nel, Ronel. Department of Zoology. Nelson Mandela Metropolitan University. Port Elizabeth. South Africa

11:00 11:15 POLICY IMPLICATIONS FOR THE NORTHERN BENGUELA UPWELLING SYSTEM UNDER DIFFERENT CLIMATE CHANGE SCENARIOS  
Heymans, Sheila, Ecology, Scottish Association for Marine Science, Scotland  
Christensen, Villy; Sumalia, Rashid; Fisheries Centre, UBC, Canada

11:15 11:30 RECOVERY OR DECLINE OF THE NORTHWESTERN BLACK SEA?  
Langmead, Olivia; McQuatters-Gollop, Abigail; Marine Institute, University of Plymouth, UK  
Mee, Laurence, Scottish Association for Marine Sciences (SAMS), Dunstaffnage Marine Laboratory, UK

11:30 11:45 SEALIFEBASE: IMPLEMENTING A FISHBASE-LIKE SYSTEM FOR MARINE ORGANISMS  
Palomares, Maria Lourdes, Fisheries Centre, University of British Columbia, Canada  
Garilao, Cristina; Bailly, Nicolas; Laxamana, Elijah; The SealifeBase Project, The WorldFish Center Philippine Office, Philippines.

11:45 12:00 CORAL REEF DEPENDENCY AND VALUATION IN LIN-GAYEN GULF: IMPLICATIONS FOR POLICY  
Trinidad, Annabelle; Geronimo, Rollan; Alino, Porfirio; Marine Science Institute, University of the Philippines, Philippines

12:00 12:15 SEAHORSE FISHERY IN BRAZIL  
Oliveira, Tacyana; Rosa, Irecê; Departamento de Sistemática e Ecologia, Universidade Federal da Paraíba, Brazil

12:15 12:30 SHIFTING BASELINE ON EXPLOITED FISHERY RESOURCES, THE FISHERS' SIDE OF THE STORY

Tesfamichael, Dawit; Pauly, Daniel; Pitcher, Tony; Fisheries Centre, University of British Columbia, Canada

12:30 12:45 MAINSTREAMING MARINE SCIENTIFIC KNOWLEDGE INTO POLICY-MAKING: EXPERIENCES AND PROSPECTS.  
Arico, Salvatore, Man and the Biosphere Programme, United Nations Educational Scientific and Cultural Organization  
Luis Valdes, Intergovernmental Oceanographic Commission

## Lunch

## Red Sea Auditorium

### Session 2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships

*Chairs: Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi*

15:00 15:15 DIVERSITY-STABILITY RELATIONSHIPS IN MARINE SYSTEMS - EVIDENCE FROM TARGETTED SAMPLING AND COMPARISON WITH OUTCOMES OF META-ANALYSIS  
Cusson, Mathieu. Département des sciences fondamentales. Université du Québec à Chicoutimi. Chicoutimi. Canada.  
Crowe, Tasman. School of Biology and Environmental Science. University College Dublin. Dublin. Ireland.  
Benedetti-Cecchi, Lisandro. Dipartimento di Biologia. Pisa. Italy.

15:15 15:30 BEAM TRAWLING, BENTHIC DIVERSITY AND ECOSYSTEM FUNCTIONING IN TEMPERATE SOFT BOTTOM HABITATS  
Rabaut, Marijn; Degraer, Steven; Vincx, Magda; Biology Department- Marine Biology Section, Ghent University (Ugent), Belgium

15:30 15:45 BIOGEOGRAPHIC VARIATION IN *MYTILUS* SPP. AND *MACOMA BALTHICA* ALONG THE EUROPEAN COAST  
Magni, Paolo, CNR, National Research Council, IAMC, Institute for Coastal Marine Environment, Italy

15:45 16:00 THE NEED FOR THE INCORPORATION OF PHYLOGENY IN THE MEASUREMENT OF BIOLOGICAL DIVERSITY, WITH SPECIAL REFERENCE TO ECOSYSTEM FUNCTIONING RESEARCH.  
King, Ian, Department of Nematology, University of California, Riverside, USA

### Session 4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, and Scientific Knowledge Work Together

*Chairs: Jake Rice; Heye Rumohr*

15:00 15:15 WORKING TOGETHER TO PROTECT BIODIVERSITY OF PACIFIC SALMON STOCKS IN BRITISH COLUMBIA  
Gallagher, Patricia, Centre for Coastal Studies, Simon Fraser University, Canada  
Orr, Craig, Watershed Watch Salmon Society, Coquitlam, British Columbia, Canada

15:15 15:30 MARINE RESERVES AS A TOOL FOR FISHERY MANAGEMENT: SPEAR-FISHING CLOSURE BENEFITS TO ARTISANAL FISHERY  
Rocklin, Delphine, Tomasini; Jean-Antoine; Mouillot, David. Ecolog UMR 5119 - CC 093, Université Montpellier II, France  
Culioli, Jean-Michel. Office de l'Environnement de la Corse. Bonifacio. France.  
Pelletier, Dominique. EMH, IFREMER. Nantes. France.

15:30 15:45 SAYA DE MALHA – AN INVISIBLE ISLAND IN THE INDIAN OCEAN. THE PROBLEM OF ESTABLISHING A SHALLOW WATER MARINE PROTECTED AREA IN THE HIGH SEAS

Vortsepneva, Elena; Tomasini, Jean-Antoine; Tzettel, Elena ; Biological faculty, Moscow State University, Russia  
Ambsdorf, Jens. Lighthouse Foundation. Hamburg. Germany.  
Vassily, Spidridonov. P.P. Shirshov Institute of Oceanology of Russian Academy of Sciences; Moscow and WWF Russia.

15:45 16:00 PLANNING OF THE MARINE AREAS IN NEED OF PROTECTION IN RUSSIA'S SECTOR OF THE ARCTIC

Spiridonov, Vassily, Laboratory of Coastal Ecosystems, P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences, Russia  
Gavrilo, Maria, Geography of Polar Regions, Arctic and Antarctic Research Institute, Russia  
Nikolaeva, Natalya, Russian Bird Conservation Union, Russia  
Ivanov, Andrey, Geography Faculty, M.V. Lomonosov Moscow State University, Russia  
Makarov, Anton, Russia

## Coffee break

### Session 1.7 Biodiversity of Deep Continental Margins: Local to Global Patterns and Processes

Chair: Myriam Sibuet

16:30 16:45 BIODIVERSITY AS A FUNCTION OF TROPHIC CONDITIONS ON CONTINENTAL MARGINS – THE NORTHERN GULF OF MEXICO  
Rowe, Gilbert, Marine Biology, Texas A&M University at Galveston, USA

16:45 17:00 HOTSPOTS AND PATTERNS OF BIODIVERSITY IN DEEP-SEA SEDIMENTS ALONG EUROPEAN MARGINS  
Dell' Anno, Antonio; Gambi, Cristina; Bianchelli, Silvia; Mea, Marianna; Zeppilli, Daniela; Corinaldesi, Cinzia; Pusceddu, Antonio; Danovaro, Roberto; Department of Marine Sciences, Polytechnic University of Marche, Italy

17:00 17:15 EXPLORING DECAPOD DIVERSITY ALONG AUSTRALIA'S WESTERN CONTINENTAL MARGIN (12° S – 35° S)  
Mc Callum, Anna. Zoology. University of Melbourne. Melbourne. Australia  
Poore, Gary. Sciences. Museum Auditorium Victoria. Melbourne. Australia  
Williams, Alan. CSIRO Marine and Atmospheric Research. Hobart. Australia

17:15 17:30 LARGE SCALE PATTERNS IN THE DIVERSITY AND COMMUNITY STRUCTURE OF DEEP-SEA NEMATODES

Vanreusel, Ann; Vanaverbeke, Jan; Raes, Maarten; Bezerra, Tania; Van Gaever, Saskia; Ingels, Jeroen; Merckx, Bea. Marine Biology, University Ghent, Belgium  
Gambi, Cristina; Danovaro, Roberto. Polytechnic University of Marche, Via Brece Bianche, 60131, Ancona, Italy.  
Fonseca, Gustavo. Alfred Wegener Institute for Polar and Marine Research, Deep-Sea Research Group, Am Handelshafen 12 (Co, ABC), D-27570 Bremerhaven, Germany  
Radziejewska, Teresa. Department of Oceanography, Agricultural University, Kazimierza Krolewiczka 4, 71-550 Szczecin.  
Muthumbi, Agnes. University of Nairobi, School of Biological sciences PO Box 30197 Kenya  
Lampadariou, Nikos. Hellenic Centre for Marine Research, Crete, Greece.  
Milyutina, Maria; Milyutin, Dmitry; Portnova, Daria. P.P. Shirshov Institute of Oceanology, Russian Academy of Sciences, 36, Nakhimovskiy Prospect, 117218 Moscow, Russia  
Esteves André; Da Silva, Maria Cristina; Venekey, Virag; Veronica Genevois. Universidade Federal de Pernambuco – UFPE, Departamento de Zoologia, Laboratório de Meiofauna Recife-PE, Brazil  
Netto, Sergio. Laboratório de Ciências Marinhas, Universidade do Sul de Santa Catarina (UNISUL), Av. Colombo Sales 84, Laguna, Santa Catarina, 88790-000, Brazil  
Tchesunov, Alexey. Dept. Invertebrate Zoology, Biological Faculty, Moscow State University, Vorobyovy Gory, Moscow 119 991, Russia.  
Gad, Gunnar. AG Zoosystematik & Morphologie, CVO Universität, Oldenburg 26111, Germany  
Ferrero, Tim. Natural History Museum Department of Zoology, Cromwell Road, London SW7 5BD, UK  
Baban, Ingole. Biological Oceanography Division, National Institute of Oceanography, Dona Paula, Panaji, Goa, 403004  
Galstova, Valentina; Zeppilli, Daniela; Pape, Ellen; Santos, Giovanni;

17:30 17:45 HETEROGENEITY OF MACROFAUNAL COMMUNITIES AT LOCAL SCALE IN THE GULF OF GUINEA

Galeron, Joelle, Environnement Profond, IFREMER, Centre de Brest, France  
Menot, Lenaick, Institut Océanographique, France

17:45 18:00 THE MID-SLOPE DEPTH PEAK IN BENTHIC DIVERSITY: ITS COMMONALITY AND POTENTIAL CAUSES

Menot, Lenaick; Sibuet, Myriam; INSTITUT Océanographique, France  
Carney, Robert, LSU, USA  
Rowe, Gilbert, TAMUG, USA  
Levin, Lisa, SIO, USA  
Sellanes, Javier, UCN, Chile  
Ramos, Ana, IEO, Spain  
Ramil, Francisco, Universidad de Vigo, Spain  
Vanreusel, Ann, Ghent University, Belgium  
Narayanaswamy, Bhavani, SAMS, UK  
Ingole, Baban, NIO, India  
Billett, David; Hughes, Alan; Gooday, Andrew; NOCS, UK  
Galerón, Joëlle, Ifremer, France

18:00 18:15 GLOBAL GENERALITY OF BATHYMETRIC ZONATION ON CONTINENTAL MARGINS  
Carney, Robert, Dept Oceanography, Louisiana State University, USA

18:15 18:30 MEGABENTHOS BIODIVERSITY IN ATLANTIC CONTINENTAL MARGINS OFF WEST AFRICA

Ramos, Ana; Centro Oceanográfico de Vigo, Instituto Español de Oceanografía, Spain  
Ramil, Fran; González-Porto, Marcos; de Matos-Pita, Susana S.; Soto; Facultad de Ciencias do Mar, Universidade de Vigo, Spain  
Balguerías, Eduardo, Subdirección, Instituto Español de Oceanografía, Spain  
Hernández, Eva, Centro Oceanográfico de Canarias, Instituto Español de Oceanografía, Spain  
Salmerón, Francisca, Centro Oceanográfico de Málaga, Instituto Español de Oceanografía, Spain  
García-Isach, Eva; Burgos, Candelaria; Estación Marina de Cádiz, Instituto Español de Oceanografía, Spain  
Sánz, José Luis; Tello, Olvido; Centro Oceanográfico de Madrid, Instituto Español de Oceanografía, Spain  
Cristobo, Javier; Centro Oceanográfico de Gijón, Instituto Español de Oceanografía, Spain  
Faraj, Abdelmalek, Institut de la Recherche Halieutique, Casablanca  
Mesfoui, Hakim, Institut de la Recherche Halieutique, Morocco  
Holtzhausen, Hannes, Ministry of Fisheries and Marine Resources, Namibia  
Meiners, César, Centro de Ecología y Pesquerías, Universidad Veracruzana, Mexico

## Museum Auditorium

### Session 4.2 Societal and Economic Benefits of Marine Biodiversity

Chairs: Juan Carlos Castilla; Lalit P. Chaudhari; Narendra Kumar Choudhary; Stefan Gelcich; Annette Kimmich; Carolyn Scheurle; Michalis Skourtos, Alyne Delaney; Poul Holm; Melanie Austen

16:30 16:45 INTEGRATING VALUATION METHODOLOGIES AT EUROPEAN CASE STUDY SITES

Austen, Melanie, Biodiversity and Sustainable Ecosystems, Plymouth Marine Laboratory, UK  
Delaney, Alyne E, Innovative Fisheries Management, North Sea Centre, Denmark  
Mangi, Beaumont, N. J. Plymouth Marine Laboratory, UK  
Holm, Poul; Marboe, A. Department of Environmental, Social and Spatial Change, Roskilde University, Denmark  
Atkins, J.; Burdon, D; Institute of Estuarine & Coastal Studies, University of Hull, UK  
Davis, C, Department of Earth and Ocean Sciences, University of Liverpool, UK  
Degraer, S; Deros Marine Biology Section, Biology Department, Ghent University, Belgium  
Dentinho, S. T; Ressurreição, A. Department of Oceanography and Fisheries, University of Azores, Portugal  
Jones, G. Edwards; Kaiser, M. School of Ocean Sciences, Bangor University, UK  
Zarzycki, T, Department of Experimental Ecology of Marine Organisms, Institute of Oceanography, University of Gdansk, Poland

16:45 17:00 FIRST STEPS IN ASSIGNING VALUE TO NEW ZEALAND'S COASTAL ENVIRONMENT

Livingston, Mary; Beaumont, Jennifer; MacDiarmid, Alison; Oliver, Megan; Science, Ministry of Fisheries, New Zealand

17:00 17:15 SOCIOCULTURAL VALUATION OF MARINE BIODIVERSITY: A CASE STUDY FROM THE ISLES OF SCILLY  
Delaney, Alyne, Environment, Society, and Spatial Change, Roskilde University, Denmark  
Marchioni, Meredith, Florida International University, USA  
Meek, David, University of Georgia, USA

17:15 17:30 ECONOMIC VALUATION OF SPECIES LOSS IN THE OPEN SEA: A CASE STUDY FROM THE AZORES  
Ressurreição, Adriana, Department of Oceanography and Fisheries, University of Azores, Portugal  
Gibbons, James, School of the Environment & Natural Resources, Bangor University, UK  
Dentinho, Tomaz, Department of Agrarian Sciences, University of Azores, Portugal  
Kaiser, Michael, School of Ocean Science, Bangor University, UK  
Santos, Ricardo, Department of Oceanography and Fisheries, University of Azores, Portugal

17:30 17:45 ECONOMIC VALUATION OF MARINE ENVIRONMENTAL DAMAGES: ASSESSMENT OF NON-USE VALUE LOSSES INVOLVED WITH THE PRESTIGE OIL SPILL BY MEANS OF VALUE TRANSFER  
Ding, Helen, Sustainability Indicators and Environmental Valuation Programme, Fondazione ENI Enrico Mattei (FEEM), Italy  
Nunes, Paulo A.L.D., Department of Economics, University of Venice and Fondazione ENI Enrico Mattei (FEEM), Venice

17:45 18:00 SEAGRASS ECOSYSTEMS OF EAST ASIA: THE 'S' FACTOR IN COASTAL BIODIVERSITY CONSERVATION IN TROPICAL ASIA-PACIFIC  
Fortes, Miguel, Marine Plants, Marine Science Institute CS, Philippines

18:00 18:15 CIVIL SOCIETY'S CONTRIBUTION TO CONSERVING MARINE BIODIVERSITY THROUGH THE ECONOMIC VALUATION OF MARINE PROTECTED AREAS  
Gelcich, Stefan, Ecologia, Pontificia Universidad Catolica, Chile

18:15 18:30 CULTURAL VALUES AND CONSERVATION STRATEGIES - SOCIO-CULTURAL CONTRIBUTION TO MARINE ECOSYSTEM GOODS AND SERVICES  
Marboe, Anne Husum, Department of Environmental, Social and Spatial Change, Roskilde University, Denmark

## Saturday November 15

### Morning

#### Red sea auditorium

##### Session 1.6 Biodiversity, Biogeography, and Vulnerability of Deep-Water Seamount and Chemosynthetic Ecosystems

Chairs: *Tim Shank; Paul A. Tyler*

10:30 10:45 SHAPING NEW PARADIGMS FOR SEAMOUNT BIODIVERSITY AND ASSESSMENTS OF THE VULNERABILITY OF SEAMOUNT HABITATS TO ANTHROPOGENIC DISTURBANCE: THE CONTRIBUTION OF THE

CENSEAM PROJECT  
Rowden Ashley, Benthic Fisheries and Ecology, National Institute of Water & Atmospheric Research, New Zealand  
10:45 11:00 ARE SEAMOUNTS UNIQUE AND SPECIAL SNOWFLAKES: LESSONS FROM NORTHEAST PACIFIC SEAMOUNTS  
McClain Craig; Barry Jim; Loundsten Lonny, N/A, Monterey Bay Aquarium Research Institute, USA.

11:00 11:15 PHYLOGEOGRAPHIC PATTERNS OF DEEP-SEA CORALS ON NORTH PACIFIC SEAMOUNTS  
Baco-Taylor Amy, Associated Scientists at Woods Hole, USA.  
Armando Sanchez Juan, Departamento Ciencias Biologicas-Facultad de Ciencias, Universidad de los Andes, Bogota, Columbia.  
Cairos Stephen, Smithsonian Institution, Washington, D.C., USA.

11:15 11:30 IN-SITU SPAWNING OBSERVATIONS OF CALYPTOGENA BIVALVES USING THE LONG-TERM DEEP-SEA OBSERVATORY

Katsunori, Fujikura; Fujiwara, Yoshihiro; Furushima, Yasuo; Maruyama, Tadashi; Hiroyuki, Yamamoto. Extremobiosphere Research Center. Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Yokosuka. Japan.  
Amaki, Kasumi. College of Bioresource Sciences. Nihon University. Fujisawa. Japan.  
Barry, James. Benthic Biology and Ecology. Monterey Bay Aquarium Research Institute (MBARI). Moss Landing. USA.  
Iwase, Ryoichi. Marine Technology Center. Japan Agency for Marine-Earth Science and Technology (JAMSTEC). Yokosuka. Japan.

11:30 11:45 HYDROTHERMAL FLUID FLUX DRIVES DIVERSITY OF DEEP-SEA HYDROTHERMAL VENT MEIOFAUNA

Gollner Sabine; Kekely Julia; Riemer Barbara; Bright Monika, Marine Biology, University of Vienna, Austria.  
Le Bris Nadine, Environnement Profond, Ifremer, Plouzané, France.

11:45 12:00 UNRAVELING THE EVOLUTION OF CHEMOSYMBIOTIC MYTILIDS: A MORPHOLOGICAL PERSPECTIVE  
Genio Luciana, Earth and Biosphere Institute - School of Earth & Environment, University of Leeds, UK.  
Kiel Steffen, Institute of geosciences -paleontology, Christian-Albrechts-University Kiel, Kiel, Germany.  
Cunha Marina R., CESAM - Centro de Estudos do Ambiente e do Mar, Departamento de Biologia, Universidade de Aveiro, Aveiro, Portugal.  
Grahame John; Little Crispin T.S., Earth & Biosphere Institute, University of Leeds, Leeds, UK.

12:00 12:15 PHYLOGEOGRAPHY AND POPULATION GENETICS OF VENT/SEEP ANIMALS IN THE WESTERN PACIFIC  
Watanabe Hiromi, Extremobiosphere Research Center, Japan Agency for Marine-Earth Science and Technology, Japan.  
Murakami Sohki; Yorisue Takefumi; Kojima Shigeaki, Marine Ecosystems Dynamics Division, Ocean Research Institute, University of Tokyo, Tokyo, Japan.  
Miyazaki Jun-Ichi, Faculty of Education and Human Science, University of Yamaguchi, Kofu, Japan.

12:15 12:30 COMPARATIVE PHYLOGEOGRAPHY OF DEEP-SEA HYDROTHERMAL VENT SPECIES ALONG THE EAST PACIFIC RISE  
Plouviez Sophie; Daguin Claire; Virad Frédérique; Lallier François; Jollivet Didier, UMR7144 UPMC CNRS, Station Biologique de Roscoff, France

12:30 12:45 POPULATION DYNAMICS AND DISPERSAL OF "COLD SEEP" CLAMS (BIVALVIA: VESICOMYIDAE): FACTORS DEFINING SPATIAL CONNECTIVITY  
Audzijonyte Asta; Vrijenhoek Robert, Molecular Biology, Monterey Bay Aquar-

## Museum Auditorium

### Session 1.2 Recent discoveries in Marine Biodiversity

Chairs: *Graham Shimmield; Bhavani Narayanaswamy*

10:30 10:45 HUNTING HIGH AND LOW – LÉVY-LIKE SCALING LAWS OF MARINE PREDATOR SEARCH BEHAVIOUR  
Sims, David, Marine Ecology, Marine Biological Association Laboratory, UK

10:45 11:00 LIFE UNDER THE FORMER ANTARCTIC LARSEN A/B ICE SHELF: A WHITE SPOT AND ITS BIODIVERSITY-CHANGE  
Gutt Julian, Marine Animal Ecology, Alfred Wegener Institute, Germany.  
Heilmayer Olaf, National Oceanography Centre, Southampton, UK.  
Isla Enrique, Institut de Ciències del Mar, Barcelona, Spain.  
Langer Stephanie, Alfred Wegener Institute, Bremerhaven, Germany.  
Lehnert Linn Sophie, Research and Technology Centre (FTZ), Buesum, Germany.  
Scheidat Meike, Wageningen IMARES, Texel, The Netherlands.  
Seiler Jan, School of Ocean Sciences, University of Wales, Bangor, UK.  
Kock Karl-Hermann, The Federal Centre of Fisheries, Hamburg, Germany.

11:00 11:15 OVER A HALF-CENTURY STUDY ON MESOZOOPLANKTON COMMUNITY IN THE GULF OF RIGA (BALTIC SEA)  
Põllupüü Maria, Department of Ecodynamics, Estonian Marine Institute of the University of Tartu, Estonia.  
Möllmann Christian, Institute for Hydrobiology and Fisheries Science, University of Hamburg, Hamburg, Germany.  
Simm Mart; Ojaveer Henn. Estonian Marine Institute, University of Tartu, Tallin, Estonia.

11:15 11:30 ASSESSING TEMPERATE BENTHIC MEIOFAUNAL DIVERSITY USING 454 METAGENETICS  
Creer Simon; Fonseca, Vera; Carvalho, Gary. School of Biological Sciences, Environment Centre Wales, Bangor University, UK  
Lunt, Dave. Department of Biological Sciences. University of Hull. Hull. UK.  
Power, Deborah. CCMAR. University of Algarve. Faro. Portugal.  
Thomas, Kelly. Hubbard Center for Genome Studies. University of New Hampshire. USA.  
Lambhead, John. Department of Zoology. Natural History Museum Auditorium. London. UK.

11:30 11:45 CRYPTIC DIVERSITY OF BATHYAL HYDROIDS FROM THE GULF OF CADIZ (NE ATLANTIC)  
J. Moura Carlos; Cunha Marina R., Departamento de Biologia, Universidade de Aveiro, Portugal.  
Medel Maria D., Departamento de Fisiologia y Biología Animal, Universidad de Sevilla, Sevilla, Spain.  
Harris David J. Centro de Investigação em Biodiversidade e Recursos Genéticos, Universidade do Porto, Porto, Portugal.  
Rogers Alex D., Institute of Zoology, Zoological Society of London, London, United Kingdom

11:45 12:00 DIVERSITY, DENSITY AND MORPHOMETRY OF A ERRINA ASPERA FACIES IN THE MESSINA STRAIT  
Salvati Eva; Angiolillo Michela; Giusti Micaela; Greco Silverstro; Canese Simonepietro, Habitat and Biodiversity Protection, Central Institute for Marine Research (ICRAM), Italy

12:00 12:15 SOFT-SHELLED FORAMINIFERA ALONG A DEPTHS OXIC - ANOXIC INTERFACE SOFT-SHELLED FORAMINIFERA ALONG A DEPTHS OXIC - ANOXIC INTERFAC FROM AN ACTIVE GAS SEEPAGE AREA (THE BLACK SEA) SOFT-SHELLED FORAMINIFERA ALONG A DEPTHS OXIC - ANOXIC INTERFACE FROM AN ACTIVE GAS SEEPAGE AREA (THE BLACK SEA) SOFT-SHELLED FORAMINIFERA ALONG A DEPTHS OXIC - ANOXIC INTERFACE SOFT-SHELLED FORAMINIFERA ALONG A DEPTHS OXIC - ANOXIC INTERFAC FROM AN ACTIVE GAS SEEPAGE AREA (THE BLACK SEA)

Anikyeyeva Oksana; Sergeeva Nelly, Department of Ecology of Benthos, Institute of Biology of the Southern Seas, Ukraine.

Gooday Andrew, Ocean Biogeochemistry and Ecosystems, National Oceanography Centre, Southampton, Southampton, United Kingdom.

12:15 12:30 THE INTERNATIONAL CENSUS OF MARINE MICROBES AND THE ENCYCLOPEDIA OF LIFE: BRIDGING THE GAP BETWEEN THE MOLECULAR AND THE TRADITIONAL  
Thessen Anne; Amaral-Zettler L.; Patterson D.J., Biodiversity Informatics, Marine Biological Laboratory, USA.

12:30 12:45 Census of Marine Life: experimental design and perspectives in the interpretation of results  
Palomo, Maria Gabriela, Laboratorio de Ecosistemas Costeros, Museo Argentino de Ciencias Naturales, Argentina.

12:45 13:00 BENTHIC INVERTEBRATE BIODIVERSITY AND BIOGEOGRAPHY PATTERNS OF SOUTH AFRICA  
Lange Louise, Zoology, Marine Biology Research Centre, South Africa.

# Poster A

## Session 1.1 Marine Biodiversity in Polar Regions

*Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart*

### THE BIODIVERSITY OF SEA ICE COMMUNITIES IN THE BALTIC SEA

Majaneva, Markus; Rintala, Janne-Markus; Tvärminne Zoological Station, University of Helsinki, Finland

Piisilä, Maria; Fewer, David; Blomster, Jaanika; Department of Biological and Environmental Sciences, University of Helsinki, Finland

### REGIONAL ASSESSMENT OF KNOWN BIODIVERSITY: THE GULF OF MEXICO EFFORT

Felder, Darryl L., Biology, University of Louisiana – Lafayette, USA

Camp, David K, NMNH Associate, Smithsonian Institution, USA

Tunnell, Jr, John W., Harte Research Institute for Gulf of Mexico Studies, Texas A&M University - Corpus Christi, USA

### BENTHIC HYDROIDS FROM THE ROSS SEA AND THE BALLENY ISLANDS (ANTARCTICA) COLLECTED BY THE NEW ZEALAND ANTARCTIC EXPEDITION BIOROSS 2004 WITH RV TANGAROA

Peña Cantero, Álvaro Luis, Unidad de Biodiversidad y Evolución de Cnidarios, Instituto Cavanilles de Biodiversidad y Biología Evolutiva, Spain

### SPATIAL PATTERNS OF BENTHIC DIVERSITY IN MOLLUSCS FROM WEST ANTARCTICA

Troncoso, Jesús, Ecología y Biología Animal, Facultad de Ciencias del Mar - UVIGO -, Campus Vigo

### BACTERIAL ASSEMBLAGES IN THE SEA ICE OF THE NORTHERNMOST BALTIC SEA, THE BOTHNIAN BAY

Leskinen, Elina; Rouvinen, Vilma; Tuomainen, Jaana; of Biological and Environmental Sciences, University of Helsinki, Finland

Vähä, Ville, Department of Biology, University of Oulu, Finland

Kaartokallio, Hermann, Department of Biology, Finnish Institute of Marine Research, Finland

### PATTERNS OF POLYCHAETE DIVERSITY IN TWO POLAR REGIONS - TAXONOMIC DISTINCTNESS AND FUNCTIONAL GROUPS APPROACH

Monika Kedra, Pabis, Krzysztof, Jacek Sicinski, Słowomira Gromisz, Maria Włodarska-Kowalczyk; Laboratory of Polar Biology and Oceanobiology, Ecology and Environmental Protection, Poland

### ZOOPLANKTON BIODIVERSITY IN AN ARCTIC FJORD (KONGSFJORDEN, SVALBARD)

Olszewska, Anna; Kwasniewski, Sławomir; Department of Marine Ecology, Institute of Oceanology Polish Academy of Sciences, Poland  
Falk-Petersen, Stig; Wold, Anette; Hop, Haakon; Norwegian Polar Institute, Norway

### TOWARDS A COMPREHENSIVE INVENTORY OF THE SOUTHERN OCEAN BIODIVERSITY

De Broker, Claude; Danis, Bruno; Department of Invertebrates, Royal Belgian Institute of Natural Sciences, Belgium

### THE CENSUS OF ANTARCTIC MARINE LIFE: A MAJOR IPY INITIATIVE

Stoddart, Michael, Department of the Environment, Water, Heritage and Arts, Australian Antarctic Division, Australia

### WHITE SEA BIOLOGICAL STATION: 50 YEARS OF BIODIVERSITY RESEARCH

Sukhotin, Alexey; Primakov, Igor; Subhotin, Alexey; White Sea Biological Station, Zoological Institute of Russian Academy of Sciences, Russia

Berger, Victor; Naumov, Andrew; White Sea Biological Station, Zoological Institute, Russia  
Flyachinskaya, Liudmila, White Sea Biological Station, Zoological Institute, Russia

### Session 1.3. Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems

*Chairs: Pedro Martinez Arbizu; Andrew Gooday; Ana Colaco; Adrian Glover; Stefanie Keller*

### BIODIVERSITY AND BIOGEOGRAPHY OF ABYSSOBENTHIC FISHES OF THE SOUTH-EASTERN ATLANTIC

Schneider, Matthias, Ichthyology-Marine Zoology, Senckenberg Research Institute and Natural History Museum Auditorium, Germany

### MACROBENTHIC COMMUNITIES ON SUB-ARCTIC BOTTOMS

Dos Santos, Eric; Svavarsson, Jörundur; Department of Biology, University of Iceland, Iceland  
Ragnarsson, Stefán, Marine Research Institute, Iceland

Tendal, Ole, Zoological Museum Auditorium, University of Copenhagen, Denmark

### BIODIVERSITY OF NEMATODE ASSEMBLAGES FROM A UNIQUE SHALLOW WATER SUBMARINE CAVE WITH CHARACTERISTICS SIMILAR TO THE DEEP-SEA

Lampadariou, Nikolaos, Oceanography, Greece  
Chevaldonné, Pedro, DIMAR, Station Marine d'Endoume, Centre d'Océanologie de Marseille, Rue de la Batterie des Lions, France  
Janssen, Annika, DZMB, Forschungsinstitut Senckenberg, Germany

### LARGE, ENIGMATIC FORAMINIFERAN-LIKE PROTISTS: DIVERSITY AND VERTICAL DISTRIBUTION IN SEDIMENTS OF AN ABYSSAL POLYMETALLIC NODULE FIELD (CLARION-CLIPPERTON FRACTURE ZONE, NE PACIFIC)

Kamenskaya, Olga, laboratory of deep-sea fauna, P.P.Shirshov Institute of Oceanology Russian Academy of Sciences, Russia  
Gooday, Andrew, National Oceanography Centre, UK  
Radziejewska, Teresa, Department of Palaeoceanology, University of Szczecin, Poland

### DIVERSITY AND LARGE-SCALE BIOGEOGRAPHY OF PARAMESOCHRIDAE (COPEPODA, HARPACTICOIDA) IN SOUTH ATLANTIC AND ANTARCTIC ABYSSAL PLAINS

Gheerardyn, Hendrik, Biology Department - Marine Biology Section, Ghent University, Belgium  
Veit-Köhler, Gritta, German Centre for Marine Biodiversity Research, Senckenberg Research Institute, Germany

### POLYCHAETE MORPHOLOGICAL AND GENETIC DIVERSITY IN THE EQUATORIAL PACIFIC

Paterson, Gordon; Glover, Adrian; Zoology, Natural History Museum Auditorium, UK

Smith, Craig; Atimara, Iris; Oceanography, University of Hawaii, USA

Foster, Peter; Dyllal, Pat; Zoology, Natural History Museum Auditorium, UK

Galeron, Joelle; Menot, Lenaik; DOP, IFREMER, France

Boeggemann, Markus, University Osnabrück, Germany

### DIVERSITY BEYOND THE SPECIES RICHNESS? HOW TO DEAL WITH LESS ABUNDANT TAXA OF THE DEEP SEA - LIKE LORICIFERA?

Gad, Gunnar, Deutsches Zentrum für Marine Biodiversitätsforschung (DZMB), Forschungsinstitut Senckenberg, Germany

### SHALLOW MARINE CAVES AS MESOCOSMS OF THE DEEP-SEA: THE "3PP CAVE" EXAMPLE

Chevaldonné, Pierre; Pérez, Thierry; Boury-Esnault, Nicole; Harmelin, Jean-Georges; Lejeune, Christophe; Zibrowius, Helmut; Vacelet, Jean; Chevaldonné, DIMAR, Centre d'Océanologie de Marseille, Aix-Marseille Université, France

Lampadariou, Nikolaos; Martínez Arbizu, Pedro; Hellenic Centre for Marine Research, Greece  
Janessen, Annika, DZMB, Forschungsinstitut Senckenberg, Germany

### Session 1.10. Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray

*Chairs: Paul Somerfield and Richard Warwick*

### MACROECOLOGICAL PATTERNS IN DIVERSITY OF MARINE BENTHIC CILIATES: DO MICROBS HAVE MACROECOLOGY?

Azovsky, Andrey, Moscow State University, Russia  
Mazei, Yuri, Penza State Pedagogic University, Russia

### THE DIVERSITY OF HARPACTICOIDA (COPEPODA) UNDER AND AWAY FROM A FISH FARM

Mateja, Grego, National Institute of Biology, Slovenia

Marleen, De Troch, Ghent University, Belgium  
Janez, Forte; Alenka, Malej, National Institute of Biology, Slovenia

### THE IMPACTS OF THE DEMERSAL HAKE TRAWL FISHERY ON BENTHIC BIODIVERSITY IN SOUTHERN AFRICA

Atkinson, Lara; Field, John, University of Cape Town, South Africa

**Session 1.11. The taxonomic component of marine biodiversity**

*Chairs: Geoff Boxshall; Christos Arvanitidis*

MORPHOMETRIC ANALYSIS OF THE GENUS TERSCHELLINGIA DE MAN, 1888 (NEMATODA, LINHOMOEIDAE) WITH DISCUSSION OF THE DIAGNOSTIC FEATURES AND IDENTIFICATION KEY TO THE SPECIES

Armenteros, Maickel; Ruiz-Abierno, Alexei; Ecology, University of Havana, Cuba  
Vincx, Magda; Decraemer, Wilfrida; marine biology section, University of Ghent, Belgium

GREEN NON-MOTILE PICOPLANKTON, PHYLOGENY, PIGMENTS AND FINE-STRUCTURE.

Eikrem, Wenche, Norwegian Institute for water research, Norwegian Institute for water research, Norway  
Jouenne, Fabien, Station Biologique de Roscoff, France  
Johnsen, Geir, Norwegian University of Science and Technology, Norway  
Legall, Florence; Vaultot, Daniel; Station Biologique de Roscoff, France

A REFERENCE DNA BARCODE LIBRARY FOR DECAPODA REVEALS PRIORITY GROUPS FOR TAXONOMIC AND SYSTEMATIC FOCUS.

Matzen da Silva, Joana, School of Biological Sciences, Environment Centre Wales, UK  
Cunha, Marina, Centro de Estudos do Ambiente e do Mar, Departamento de Biologia, Universidade de Aveiro, Portugal  
Costa, Filipe, Departamento de Biología, Universidade do Minho, Portugal  
dos Santos, Antonia, Instituto Nacional de Investigação Agrária e das Pescas (INIAP-IPIMAR), Oeiras, Portugal  
Creer, Simon, School of Biological Sciences, Environment Centre Wales, Bangor University, UK

POLYCHAETE ASSEMBLAGE AROUND A SEWAGE OUTFALL IN A WESTERN MEDITERRANEAN SOFT-BOTTOM BEACH.

Royo García, Miguel; Torres-Gavilá, Javier; Tiena Medialdea, José; Valero Hervás, Mario; Ciencias del Mar, Instituto De Investigación En Medio Ambiente Y Ciencia Marina. Universidad Católica De Valencia, Spain

RHOPALIOPHORAN JELLYFISH (CNIDARIA: CUBOZOA, SCYPHOZOA, STAUROZOA). ARE TRADITIONAL MORPHOLOGICAL APPROACHES STILL VALID TO ACCESS THEIR BIODIVERSITY?

Morandini, Andre, NUPEM/UFRJ, Brazil

SCALIDOPHORA OF THE GULF OF MEXICO

Shirley, Thomas, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi, USA

MOLLUSCAN BIODIVERSITY OF THE GULF OF MEXICO

Tunnell, John W; Moretzsohn, Fabio, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi, USA

Rosenberg, Gary, Department of Malacology, Academy of Natural Sciences of Philadelphia, USA

MOLLUSCAN BIODIVERSITY OF THE GULF OF MEXICO

Moretzsohn, Fabio; Tunnell, John W; Harte Research Institute for Gulf of Mexico Studies, Texas A&M University-Corpus Christi, USA  
Rosenberg, Gary, Department of Malacology, Academy of Natural Sciences of Philadelphia, USA  
Turgeon, Donna, Fairfax Station, USA

TAXONOMY OF EUROPEAN PEA CRABS (CRUSTACEA, DECAPODA, BRACHYURA, PINOTHERIDAE)-TRADITIONAL TOWARDS MODERN MORPHOLOGICAL METHODS

Becker, Carola; Tuerkay, Michael; Marine Zoology: Crustacea, Research Institute Senckenberg, Germany

BIODIVERSITY OF IBERIAN PYCNOGONIDS PROJECT: PRELIMINARY RESULTS

Munilla, Tomás; Soler-Membrives, Anna; Biología Animal, Biología Vegetal y Ecología, Universidad Autónoma de Barcelona, Spain

Session 2.2 Biodiversity & Ecosystem Shifts: Viewed from the Bottom Up  
Chairs: John R. Dolan; Wiebe Kooistra

MAJOR DIFFERENCES OF BACTERIAL DIVERSITY AND ACTIVITY INSIDE AND OUTSIDE OF A NATURAL IRON-FERTILIZED PHYTOPLANKTON BLOOM IN THE SOUTHERN OCEAN

West, Nyree, Laboratoire d'Océanographie Biologique, Observatoire Océanologique de Banyuls, France

AN INTEGRATED MICROBIAL OBSERVATORY IN THE NW MEDITERRANEAN SEA

Lebaron, Philippe, Laboratoire ARAGO, University Pierre et Marie Curie - Paris Universitatis, France  
Gasol, Joseph; PEDROS-ALIO, Carlos; Departament de Biologia i Oceanografia, Institut de Ciències del Mar - CMIMA, Spain  
Obernosterer, Ingrid, Laboratoire d'Océanographie Biologique, Laboratoire ARAGO - CNRS, France

LINKING ENVIRONMENTAL PARAMETERS AND CHANGES IN ACTIVE DIAZOTROPHIC COMMUNITY STRUCTURE TO NITROGENASE ACTIVITY PATTERNS IN COASTAL MICROBIAL MATS

Severin, Ina; Stal, Lucas J.; Marine Microbiology, NIOO-Center for Marine and Estuarine Ecology, Netherlands

DIATOM EVOLUTION

Kooistra, Wiebe, Marine Botany, Stazione Zoologica Anton Dohrn, Italy

ENVIRONMENTAL CONDITION, LIFE CYCLES AND ENDOGENOUS CLOCKS IN PHYTOPLANKTON DYNAMIC. EVIDENCES FROM EXPERIMENTAL OBSERVATIONS IN THE NW ADRIATIC SEA

Bastianini, Mauro; Bernardi Aubry, Fabricio; ISMAR Istituto di Scienze Marine, CNR Consiglio Nazionale delle Ricerche, Italy

Solidoro, Cosimo; Bandelj, Vinko; Istituto Nazionale Oceanografica di Geofisica Sperimentale, OGS, Italy

Session 2.3 Ecosystem Functioning and Biodiversity Science in the Deep sea  
Chairs: Inge Jonckheere; Françoise Gaill; Eva Ramirez-Llodra; Michail Yakimov; Christian Stenseth; Lisandro Benedetti-Cecchi

THE ESF EURODEEP PROGRAMME- ECOSYSTEM FUNCTIONING AND BIODIVERSITY IN THE DEEP SEA

Jonckheere, Inge, IESC, European Science Foundation (ESF), France

NEW INSIGHTS ON RIMICARIS EXOCULATA BACTERIAL ECOSYMBIOSIS: A MOULT CYCLE RELATED PERSPECTIVE

Corbari, Laure; Compère, Philippe; University of LiègeLab. morphologie fonctionnelle et évolutive - Morphologie Ultrastructurale, University of Liège, Belgium  
Cambon-Bonavita, Marie-Anne, Laboratoire de Microbiologie et Biotechnologie des Extrémophiles, Ifremer, France  
Long, Gary J., Department of Chemistry, Missouri University of Science and Technology, USA  
Grandjean, Fernande, Department of Physics, University of Liège, Belgium  
Zbinden, Magail; Gaill, Françoise; UMR CNRS 7138 Systématique, Adaptation et Evolution, University Pierre et Marie Curie, France

EXPLORING PATTERNS OF BIODIVERSITY, FUNCTION AND EXTERNAL FORCING IN A GULF OF MAINE LANDSCAPE

Ellis, Sara; Incze, Lewis; Wolff, Nicholas; Gulf of Maine Area Census of Marine Life, University of Southern Maine, USA  
Auster, Peter, University of Connecticut, USA  
Lawton, Peter, St. Andrews Biological Station, Canada

THE STRUCTURAL AND FUNCTIONAL BIODIVERSITY OF THE MEIOFAUNA IN RELATION TO GEOCHEMICAL CONDITIONS ON THE DARWIN MUD VOLCANO IN THE GULF OF CADIZ

Pape, Ellen; Bezerra; Vanreusel, Ann; Tania Nara; Marine Biology Section, Ghent University, Belgium  
Heeschen, Katja, Geochemistry research Group, National Oceanography Centre, UK  
Moodley, Leon, Ecosystem Studies, Centre for estuarine and marine ecology (NIOO-KNAW), Netherlands

ARE DEEP SEA COMMUNITIES CONTROLLED BY SURFACE WATER PRODUCTIVITY: A TALE OF TWO SEAS?

Jeffreys, Rachel; Lavaleye, Marc; Duineveld, Gerard; Marine Ecology, NIOZ, Netherlands

**Session 2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships**

*Chairs: Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi*

THE IMPACT OF SEABED DISTURBANCE ON THE

## DIVERSITY OF MEIOFAUNA COMMUNITIES ? LINKING FIELD AND LABORATORY OBSERVATIONS.

Schratzberger Michaela, Lowestoft Laboratory, Centre for Environment, Fisheries and Aquaculture Science, United Kingdom.

Lampadariou Nikolaos, Institute of Oceanography, Hellenic Centre for Marine Research, Iraklion, Greece.

Somerfield Paul, Plymouth Marine Laboratory, Plymouth, United Kingdom.

Vandepitte Leen, Flanders Marine Institute, Oostende, Belgium.

Vanden Berghe Edward, Rutgers University, Institute of Marine and Coastal, New Brunswick, USA.

## CHANGES IN BENTHIC DIVERSITY AND ECOSYSTEM FUNCTION IN RESPONSE TO ORGANIC ENRICHMENT FROM FISH FARMING.

Papageorgiou Nafsika, Kalantzi Ioanna; Apostolaki Eugenia; Sevastou Katerina; Karakassis Ioannis, Biology Department, University of Crete, Crete.

## NEMATODE SIZE AND SHAPE FROM THE SHELF TO THE DEEP SEA: ADAPTATIONS TO BENTHIC ECOSYSTEM FUNCTIONING.

Vanaverbeke Jan; Franco Maria; Steyaert Maaike; Marine Biology Section, Ghent University, Belgium. Lampadariou Nikolaos, Hellenic Centre for Marine Research, Heraklion, Greece.

Muthumbi Agnes, Department of Zoology, University of Nairobi, Nairobi, Kenya.

Vandepitte Leen; Vanden Berghe Edward, VLIZ, Oostende, Belgium, Soetaert Karlina, NIOO-CEME, Yerseke, The Netherlands.

## MARINE BIOFILM BACTERIA DEVELOPING ON TEST PANELS DYED BY SOME ANTIFOULING-PAINTS IN THE MARINA OF IZMIR BAY, TURKEY.

Kacar Asli; Cihangir Bulent, Microbiology, Marine Sciences and Technology, Turkey.

Kocycigit Ali; Ozdemir Guven, Microbiology, Science Faculty, Izmir, Turkey.

## ANTHROPOGENIC DISTURBANCE OF DEEP-SEA MEGABENTHIC ASSEMBLAGES: A STUDY WITH REMOTELY-OPERATED VEHICLES IN THE FAROESHETLAND CHANNEL, NE ATLANTIC.

Jones Daniel, Ocean Biogeochemistry and Ecosystems, National Oceanography Centre, Southampton, UK.

## THE RELATIONSHIP BETWEEN BIODIVERSITY AND FUNCTIONING OF SOFT SEDIMENT ECOSYSTEMS WITH VARIABLE REGIMES OF DIVERSITY AND DISTURBANCE.

Aspden Rebecca, School of Biology, University St Andrews, Scotland.

Paterson David, University St Andrews, Scotland. Rossi Francesca, Netherlands Institute of Ecology, Centre for Estuarine and Marine Ecology, Department of Ecosystems Studies, Netherlands.

## EFFECT OF BIODIVERSITY ON THE STABILITY OF MARINE COMMUNITIES EVIDENCE FROM META-ANALYSIS OF EXPERIMENTAL STUDIES.

Bulleri Fabio; Cusson Mathieu; Benedetti-Cecchi Li-

sandro, Dipartimento di Biologia, Universitat di Pisa, Italy.

Kotta Jonne, Estonian Marine Institute, Tallinn, Estonia.

Crowe Tasman Peter, Department of Zoology, University College Dublin, Dublin, Ireland.

## EXPERIMENTAL EVALUATION OF THE ROLE OF SEAGRASSES IN THE RESISTANCE AND RESILIENCE OF SEDIMENT FUNCTIONING TO ORGANIC MATTER LOADING.

Terrados Jorge, Ecology and Marine Resources, IMEDEA (CSIC-UIB) Instituto avanzado de estudios avanzados, Spain.

Asmus Raghild, Alfred Wegener Institute for Polar and Marine Research, Sylt, Germany.

Kotta Jonne, Marine Biology, Estonian Marine Institute, University of Tartu, Tallinn, Estonia.

## EFFECTS OF SUB-LETHAL LEVELS OF CONTAMINANTS ON BENTHIC BIODIVERSITY-ECOSYSTEM FUNCTION RELATIONS.

Murray Leigh, School of Biological Sciences / Zoology, University of Aberdeen, Scotland, UK.

## NOVEL IN-SITU TECHNIQUES FOR LINKING BIOLOGICAL ACTIVITY TO SEDIMENT FUNCTION.

Teal Lorna, Oceanlab, University of Aberdeen, Scotland.

Parker Ruth, CEFAS, Lowestoft, England.

Fones Gary, SEES, University of Plymouth, Plymouth England.

Solan Martin, Oceanlab, University of Aberdeen, Newburgh, Scotland.

## RECRUITMENT OF BENTHIC COMMUNITIES ON ARTIFICIAL PANELS LOCATED OVER VEGETATED SUBSTRATES (POSIDONIA OCEANICA MEADOWS) AND SANDY BOTTOMS.

Cabanellas-Reboredo Miguel; Deudero Salud, Biology, University of Balearic Islands, Spain.

Hendriks Iris Eline, Litoral Ecology, IMEDEA (CSIC-UIB), Spain.

## Session 3.1 Assessing the consequences of large-scale biodiversity change

*Chairs: Boris Worm; Heike K. Lotze*

## ASSESSING THE CONSEQUENCES OF DIVERSITY CHANGES IN FISH COMMUNITIES: AN EXPERIMENTAL APPROACH

Sieben, Katrin; Eriksson, Britas Klemens; Department of Marine Benthic Ecology and Evolution, University of Groningen, Netherlands

## STATISTICAL MODEL FOR THE PREDICTION OF FISHERY-INDUCED CHANGES IN BIODIVERSITY OF SARDINIAN DEMERSAL ASSEMBLAGES

Locci, Ivan; Follesa, Maria Cristina; Pesci, Paola; Sabatini, Andrea; Cau, Angelo; Department of Animal Biology and Ecology, University of Cagliari, Italy

## BIOGEOGRAPHICAL DISTRIBUTION PATTERNS OF POLYCHAETE SPECIES FROM THE CONTINENTAL SHELF (0-200 M) IN THE NORTH EASTERN ATLANTIC OCEAN, FROM THE SOUTH OF SPAIN (GIBRALTAR STRAIT) TO THE NORTH OF NORWAY (36 -70 N)

Quiroz Martinez, Benjamín; Schmitt, François G.; Dauvin, Jean-Claude; Dewarumez, Jean-Marie; Laboratoire d'Océanologie et de Géosciences, Station Marine de Wimereux, Université de Lille 1, France Salas-de-León, David-Alberto, Unidad Académica de Geología Marina y Ambiental, Instituto de Ciencias del Mar y Limnología, Universidad Nacional Autónoma de México, Mexico

## HOW TO MODEL LARGE-SCALE HABITAT CHANGES USING EELGRASS (ZOSTERA MARINA) MEADOWS AS A CASE STUDY

Bekkby, Trine; Rinde, Eli; Biodiversity and Eutrophication in Marine Environments, Norwegian Institute for Water Research, Norway

Erikstad, Lars, Department of Landscape Ecology, Norwegian Institute for Nature Research, Norway Bakkestuen, Vegar, Museum Auditorium of Natural History, University of Oslo, Norway

Isæus, Martin, AquaBiota Water Research, Aqua-Biota Water Research, Sweden

## Session 3.2. What lived in the oceans? Shifting baselines in time and space

*Chairs: Bo Poulsen; Loren McClenachan; Andrew A. Rosenberg; Matthew McKenzie*

## LONG-TERM CHANGES IN THE DIET OF STRIPED DOLPHINS FROM THE WESTERN MEDITERRANEAN: A ROLE FOR ANTHROPOGENIC FACTORS?

C. Blanco; B. Ruiz; B. de Regil; F.J. Aznar; A. Raduán; M. Fernández; J.A.Raga, University of Valencia, Spain

## HISTORICAL CHANGES IN MACROALGAL DIVERSITY IN THE GULF OF NAPLES: FROM 1878 TO 2007.

Soria, Alessio; Maria Cristina Buia. Stazione Zoologica Anton Dohrn, Punta San Pietro Ischia, Italy

## Session 4.1. Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications

*Chairs: Adrianna Ianora; Angelo Fontana*

## TERPENE BIOSYNTHESIS AND NOVEL FURANOSSESQUITERPENES FROM THE MARINE NUBRANCH DORIPSILLA PELSENERI

Cutignano, Adele, CNR, Institute of Biomolecular Chemist, Italy

Gaspar, Helena; Ferreira, Teodora; INETI, Est. do Paço do Lumiar, Portugal

Fontana, Angelo, ICB-CNR, Italy Calado, Gonçalo, Centro de Modelação Ecológica-IMAR, FCT/UNL, Portugal

# Poster B

## Session 1.2 Recent discoveries in Marine Biodiversity

Chairs: Graham Shimmield; Bhavani Narayanaswamy.

PHYSIOLOGICAL AND BIOCHEMICAL FOUNDATION OF BIODIVERSITY IN MARINE ANIMALS.

Shulman Georgiy, Animal Physiology and Biochemistry, Institute of Biology of the Southern Seas, Ukraine.

ECOLOGICAL AND BIOLOGICAL ASSESSMENT OF HIPPOCAMPUS INGENS "PACIFIC SEAHORSE" IN THE NORTHERN PERUVIAN SEA.

Quiñe Marina, Biodiversity, Instituto del Mar del Perú, Peru.

MEIOBENTHOS ALONG AN DEPTHS OXIC - ANOXIC INTERFACE ALONG A CROSS-SECTIONAL TRANSECT FROM AN ACTIVE GAS SEEPAGE AREA (THE BLACK SEA).

Sergeeva Nelly; Anikeeva Oksana; Mazlumyan Sofiya, Department of Ecology of Benthos, Institute of Biology of the Southern Seas, Ukraine.

CURRENT STATE AND MAIN CHALLENGES OF TAXONOMIC RESEARCH IN SWEDEN. BRYOZOA – A CASE STUDY.

Fuchs Judith; Sundber Per, Zoology, University of Gothenburg, Sweden.  
Obst Matthias, The Sven Lovén Center for Marine Sciences, University of Gothenburg, Fiskebäckskil, Sweden.

DEFINING MARINE MEIOFAUNAL GENETIC DIVERSITY AT FINE GEOGRAPHIC SCALES USING 454 METAGENETICS.

Fonseca Vera; Carvalho Gary; Creer Simon, School of Biological Sciences, Environment Centre Wales, Bangor University, UK.  
Lambhead John, 2Natural History Museum Auditorium, Bangor, UK.  
Lunt Dave, University of Hull, Hull, UK.  
Thomas Kelly, Hubbard Center for Genome Studies, University of New Hampshire, Durham, USA.  
Power Deborah, CCMAR, University of Algarve, Faro, Portugal.

RECONSIDERING ZOANTHID (ANTHOZOA:HEXACORALLIA) BIODIVERSITY USING TRADITIONAL AND MOLECULAR TECHNIQUES.

Sinniger Frederic; Fujii Takuma; Reimer James Davis, Department of Chemistry, Biology and Marine Science, University of the Ryukyus, Japan.

MACROBENTHIC DIVERSITY IN DEEP HARD BOTTOM ASSEMBLAGES ALONG THE SOUTHERN TYRRHENIAN COAST OF CALABRIA (ITALY).

Angiolillo Michela; Salvati Eva; Giusti Michela; Cardianli Andrea; Fabroni Fabrizio; Greco Silvestro; Canese Simonepietro, Habitat and Biodiversity Protection, Central Institute of Marine Research (ICRAM), Italy.

BARCODING MARINE LIFE: THE CASE OF NORTH-WEST ATLANTIC CRUSTACEANS.

Radulovici Adriana; Dufresne France, Biology, Université du Québec a Rimouski, Canada.  
Sinte-Marie Bernard, Invertebrate Biology and Conservation, Fisheries and Oceans, Mont-Joli, Canada.

## Session 1.4 Discoveries From Integrated Data Systems

Chairs: Ward Appeltans; Mark J. Costello; Edward Vanden Berghe

ODINAFRICA: MARINE BIODIVERSITY DATA (MOLLUSCS, DECAPODS AND PORIFERA).

Wambjii Nina, Fisheries, Kenya Marine & Fisheries Research Institute, Kenya.  
Silvi Edith Nsiangango, Instituto Nacional de Investigação Pesqueira, Ministério das Pegas, Luanda, Angola.  
Azza Mint, Institut Mauritanien de Recherches Océanographiques et de Pêches (IMROP), Nouadhibou, Mauritanie.  
Zamouri Nedra, INSTM, Tunis, TUNISIA.  
Mussai Prakash, Mauritius Oceanography Institute, France centre, Quatre Bornes, MAURITIUS.  
Vanden Berghe Edward, Flanders Marine Institute, Oostende, Belgium, Leen Vandepitte.

## Session 1.5 Open Ocean Pelagic And Benthopelagic Diversity: Patterns And Monitoring

Chairs: Odd Aksel Bergstad; Ann Bucklin; Tone Falkenhaus; Uwe Piatkowski.

THE COMPLETE MITOCHONDRIAL GENOME SEQUENCE OF THE PLANKTONIC CHAETOGNATH SAGITTA NAGAE

Hiroomi Miyamoto; Shuhei Nishida, Tokyo University, Ocean Research Institute, Japan.

BIODIVERSITY OF MESOZOOPANKTON IN THE SULLU SEA AND ITS ADJACENT WATERS WITH SPECIAL REFERENCE TO COPEPODS.

Nishikawa Jun; Nishida Shuhei, Ocean Research Institute, The University of Tokyo, Japan.

PELAGIC SPECIES DIVERSITY IN THE CENTRAL-SOUTHERN MEDITERRANEAN – OVERVIEW FROM LONG-TERM FIELD RESEARCH.

Vella Adriana, Conservation Biology Research Group, Dept. of Biol. University of Malta, MALTA.

AMPHIPODA HYPERIDEA DISTRIBUTED IN A LARGE REGION OF THE SOUTH-WESTERN ATLANTIC.

Viñas María Delia; Padovani Luciano Nahuel, Laboratorio de Zooplancton, Nacional de Investigación y Desarrollo Pesquero (INIDEP), Argentina.  
Alvarez Colombo Gustavo, Laboratorio de Hidroacústica, Instituto Nacional de Investigación y Desarrollo Pesquero (INIDEP), Mar del Plata, Argentina.

COPEPOD LIMNOCALANUS MACRURUS VERTICAL FEEDING ECOLOGY IN THE GULF OF RIGA (BALTIC SEA).

Rubene Gunta; Aispure Gunta, Marine Laboratory, Latvian Fish Resources Agency, Latvia.

GELATINOUS MACROZOOPANKTON ON THE MID-ATLANTIC RIDGE. DISTRIBUTION PATTERNS

OF TRAWL-COLLECTED PLANKTONIC CNIDARIANS.

Falkenhaus Tone, The composition, abundance and vertical distribution of medusae and siphonophores collected along the northern Mid-Atlantic Ridge (MAR) are presented. Planktonic cnidarians were

DEPTH RANGE, SIZE DISTRIBUTION AND DENSITY OF POPULATIONS OF RED GORGONIAN PARAMURICEA CLAVATA (RISSO 1826) AS IMPORTANT FACTORS IN MAINTAINING KORNATI ARCHIPELAGO BIODIVERSITY, EASTERN ADRIATIC.

Zubak Ivana, Biology Department, University of Zagreb, Faculty of Science, Croatia.  
Cizmek Hrvoje, Marine explorers society "20000 leagues", Split, Croatia.  
Markov Podvinski Martina, Ecological Association "Argonauta", Murter, Croatia.

CHANGES IN COPEPOD ABUNDANCE AND DIVERSITY IN THE GULF OF TRIESTE (ADRIATIC SEA): 1970-2005: A CHANGING ECOSYSTEM.

Conversi Alessandra; Peluso T, CNR, ISMAR, Italy.  
Fonda-Umani S, Department of Biology, University of Trieste, Italy.

DIVERSITY OF THE BALTIC CLAM MACOMA BALTICA L. AT LOCAL AND GEOGRAPHICAL SCALES (BARENTS SEA).

Gantsevich Mikhail, Zoology of Invertebrates, Moscow State University, Faculty of Biology, Russia.  
Basova L, Department of Ichthyology and Hydrobiology, St.-Petersburg State University, St. Petersburg, Russia.

Gantsevich Mikhail, Department of Invertebrate Zoology, Faculty of Biology, Moscow State University, Moscow, Russia.  
Genelt-Yanovsky E; Department of Invertebrate Zoology, Faculty of Biology and Soil Science, St.-Petersburg State University, Universitetskaya emb., St. Petersburg, Russia.  
Strelkov P, Department of Ichthyology and Hydrobiology, St.-Petersburg State University, St. Petersburg, Russia.

## Session 1.6 Biodiversity, Biogeography, And Vulnerability Of Deep-Water Seamount

And Chemosynthetic Ecosystems.  
Chairs: Tim Shank; Paul A. Tyler

BIOGEOGRAPHY OF DEEP-SEA HYDROTHERMAL VENTS: CHARACTERIZATION OF NEW PROVINCES AND INFLUENCE OF SAMPLING EFFORT  
Bachraty Charleyne; Legendre Pierre, Sciences Biologiques, Université de Montréal, Canada.  
Desbruyères Daniel, Étude des écosystèmes profonds, Ifremer, Brest, France.

A GLOBAL CENSUS OF MARINE LIFE ON SEAMOUNTS: ARE THEY REALLY OASES IN THE OCEAN?

Consalvey Mireille, Deeper Fisheries, National Institute of Water and Atmospheric Research (NIWA), New Zealand.

DISTRIBUTION AND ABUNDANCE OF A SULPHOPHILIC, HYDROTHERMAL VENT FLATFISH.

Tyler Jennifer, Biology, University of Victoria, Canada.  
Tunncliffe Verena; Dower John, Biology and School

of Earth and Ocean Sciences, University of Victoria, Victoria, Canada.

### **Session 1.7 Biodiversity Of Deep Continental Margins: Local To Global Patterns And Processes**

Chair: Myriam Sibuet.

THE CONCEPCION METHANE SEEP AREA (CHILE ~36°S): A HOTSPOT OF FAUNAL DIVERSITY ENHANCED BY SUBSTRATE HETEROGENEITY.

Sellanes Javier, Departamento de Biología Marina, Universidad Católica del Norte, Chile.  
Quiroga Eduardo, Centro de Investigación en Ecosistemas de la Patagonia (CIEP), Coyhaique, Chile.  
Carlos Neira, Scripps Institution of Oceanography, La Jolla, California, USA.

TRENDS IN NEMATODE SPECIES DIVERSITY AND FEEDING TYPES ACROSS THE WESTERN INDIAN MARGIN.

Ingole Baban; Singh Ravail, biological oceanography, national institute of oceanography, India.

MEIOFAUNA IN THE BENTHIC BOUNDARY LAYER OF THE DEEP (2347 M) NW MEDITERRANEAN?

Guidi-Guilvard Laurence, Laboratoire d'Océanographie de Villefranche (LOV), CNRS, France.  
Thistle David, Department of Oceanography, Florida State University, Tallahassee, USA.  
Khripounoff Alexis, EEP/LEP, IFREMER, Brest, France.  
Gasparini Stéphane, Laboratoire d'Océanographie de Villefranche (LOV), Université Pierre & Marie Curie, Villefranche sur mer, France.

MAREANO, A NATIONAL MAPPING PROGRAMME DOCUMENTING BOTTOM TOPOGRAPHY, THE ENVIRONMENT AND BOTTOM FAUNA ON THE CONTINENTAL SHELF AND SLOPE OF NORTHERN NORWAY.  
Buhl-Mortensen Lene, Research group Benthic Habitat and Shellfish, Institute of Marine Research, Norway.

DEEP SEA SPECIES DISTRIBUTION IN THE SEA OF MARMARA ON BEAM-TRAWL SURVEY.

Turetken Kenan, Fuat/Research Assistant, Istanbul University Faculty of Fisheries, Marine Biology, Turkey.  
Gokturk Didem, Istanbul University Faculty of Fisheries, Department of Fisheries Technology, Istanbul, Turkey.  
Unsal Nuran, Istanbul University Faculty of Fisheries, Marine Biology, Istanbul, Turkey.  
Uluturk Tuncer, Istanbul University Faculty of Fisheries, Department of Fisheries Technology, Istanbul, Turkey.

### **Session 1.8 Marine Biogeography And Comparative Phylogeography: Joining Paleontologists, Taxonomists, Ecologists And Geneticists**

Chairs: Anne Chenuil; Filipe Alberto

HYPOTHESIS ON DISPERSAL MODE OF CERASTODERMA GLAUCUM (BIVALVIA) PROVED BY MITOCHONDRIAL DNA AND MICROSATELLITE STUDIES.

Tarnowska Katarzyna, Laboratory of Estuarine Ecology, Institute of Oceanography, University of Gdańsk, Poland.  
Chenuil Anne; Feral Jean-Pierre, Laboratoire DIMAR, Centre d'Océanologie de Marseille, Université de la Méditerranée, Marseille, France.  
Wolowicz Maciej, Laboratory of Estuarine Ecology, Institute of Oceanography, University of Gdańsk, Gdynia, Poland.  
Green Andy, Department of Wetland Ecology, Estación Biológica de Doñana-CSIC, Sevilla, Spain.

PHYLOGEOGRAPHIC RELATIONSHIPS IN THE MAUVE STINGER PELAGIA NOCTILUCA INFERRED FROM MTCOI GENE SEQUENCES.

Ram ak Andreja, Marine Biology Station, National Institute of Biology, Slovenia.  
Stopar Katja; Malej Alenka; Ram ak Andreja, Marine Biology Station, National Institute of Biology, Piran, Slovenia.  
Doyle Thomas K., Coastal & Marine Resources Centre, University College Cork, Cork, Ireland.

THE KNOWLEDGE OF SEA SLUGS' DIVERSITY IN PORTUGAL: AN OASIS AMONG MARINE INVERTEBRATES.

Calado Gonçalo, DCEA/FCT, IMAR, Portugal.

BIOGEOGRAPHICAL BARRIERS AND GLACIAL REFUGIA IN THE RED SEAWEED GRACILARIA GRACILIS.

Destombe Christophe; Valero Myriam; Tellier Florence; Engel Carolyn, UMR7144 CNRS-UPMC, Station Biologique de Roscoff, France.  
Guillemin Marie Laure, Instituto de Ecología y Evolución, Universidad Austral de Chile, Valdivia, Chile.

RELATIONSHIPS BETWEEN CLONAL DIVERSITY AND ECOSYSTEM STRUCTURE AND FUNCTION: A FIRST APPROACH IN THE MEDITERRANEAN POSIDONIA OCEANICA SEAGRASS SYSTEM.

Procaccini Gabriele, Functional and Evolutionary Ecology, Stazione Zoologica Anton Dohrn, Italy.  
Vasapollo Claudio; Dattolo Emanuela; Ferrara Adriana; Gambi Maria Cristina; Buia Maria Cristina; Procaccini Gabriele, Stazione Zoologica Anton Dohrn, Napoli, Italy.

HIGH GENETIC DIVERSITY AT A LOCAL SCALE IN DWARF EELGRASS, ZOSTERA NOLTII.

Fernandez Maria Victoria, Laboratori d'Ictiologia Genètica, Universitat de Girona, Spain.

DIFFERENT POPULATION STRUCTURE PATTERNS FOR REEF FISHES AROUND CUBA.

Castellanos Jessi, Genética de la Conservación, Centro de Investigaciones Marinas. Universidad de La Habana, Cuba.

Aymée Robainas Barcia; Jessy Castellanos Gell; Erik García Machado, Centro de Investigaciones Marinas, Universidad de La Habana, Ciudad de La Habana, Cuba.  
Didier Casane, Laboratoire Evolution, Génomes et Séciation, CNRS Gif Sur Yvette, Paris, France.  
José Antonio Sánchez Prado, Laboratorio de Genética Agrícola, Instituto Universitario de Biotecnología de Asturias, Oviedo, España.

THE IMPORTANCE OF RAFTING ON MACROALGAE FOR DISPERSAL AND GENE FLOW OF NORTH ATLANTIC INVERTEBRATES.

Clarkin Emmett; Maggs Christine; Johnson Mark; Allock Louise, School of Biological Sciences, Queens University, Northern Ireland.

LOOKING FOR GENES UNDER SELECTION IN FUCUS SERRATUS, A WIDESPREAD INTERTIDAL BROWN ALGAL.

Coyer James; Hoarau, Galice; Stam Wytze; Olsen Joanine, Marine Benthic Ecology & Evolution, University of Groningen, The Netherlands.

MUNIDOPSIS (DECAPODA: ANOMURA: GALATHEIDAE): BIODIVERSITY & BIOGEOGRAPHY.

Cubelio Sherine Sonia, Department of Extreme Biosphere, JAMSTEC, India.  
Tsuchida Shinji, Japan Agency for Marine Earth science & Technology, Tokyo, Japan.  
Watanabe Seiichi, University of Marine Science & Technology, Japan.

THE BIOLOGICAL GEOGRAPHY OF THE EUROPEAN SEAS: RESULTS FROM THE MACROFAUNAL INVENTORY OF THE SOFT-SUBSTRATE COMMUNITIES.

Arvanitidis Christos, institute of marine biology and genetics, hellenic centre for marine research, Greece.  
Somerfield Paul J., Plymouth Marine Laboratories, Plymouth, UK.  
Rumohr Heye, Leibniz Institute for Baltic Sea Research, Warnemünde (IOW), Biological Oceanography, Rostock, Germany.

FRAYED AT THE EDGES: SELECTIVE PRESSURE AND ADAPTIVE RESPONSE IS MISMATCHED IN LOW DIVERSITY EDGE POPULATIONS

Pearson, Gareth; Lago-Leston, Asuncion; Mota, Catarina. CCMAR. Universidade do Algarve. Faro. Portugal

### **Session 2.1 Coastal Marine Benthic Biodiversity And Ecosystem Process Under Uncertain Environmental Futures**

Chairs: Martin Solan; Dave Paterson; Dave-Raffaelli; Piran Whit

BENTHIC AMPHIPOD DIVERSITY IN THE AEGEAN SEA, AFFINITIES WITH OTHER MEDITERRANEAN REGIONS AND THE BLACK SEA.

Sezgin Murat, Marine Biology and Ecology Department, Sinop University Fisheries Faculty, Turkey.  
Kata an Tuncer; Kocata Ahmet; Bak r Kerem, Hydrobiology Department, Ege University Fisheries Faculty, zmir, Turkey.

EFFECTS OF POLLUTION ON INTRASPECIFIC GENETIC BIODIVERSITY OF BIOINDICATOR FLATFISH.

Tysklind Niklas; Taylor Martin I, Mc Carthy Ian, School of Biological Sciences, Bangor University.  
Lyons Brett P, Weymouth CEFAS Laboratory, CEFAS, Weymouth, United Kingdom.

NORTHERN ADRIATIC SEA "TEGNÛE" (OUTCROPS): DISTRIBUTION OF BENTHIC COMMUNITIES ON THREE STUDY SITES.

Boscolo Simonetta, Dipartimento di Medicina Ambientale e Sanità Pubblica, Università di Padova - C.A.M. Idrografica (Venezia Lido), Italy.  
Falconi Andrea, C.A.M. Idrografica, Via D. Michiel 1/D, Venezia Lido 30126, Italy.  
Falconi Nicola, Dipartimento di Medicina Ambientale e Sanità Pubblica, C.A.M. Idrografica, Via D. Michiel 1/D, Italy.  
Baroni Alberto, Dipartimento di Medicina Ambientale e Sanità Pubblica, Università di Padova - C.A.M. Idrografica (Venezia Lido), Padova, Italy.

BIODIVERSITY PATTERNS OF MOTILE EPIBENTHIC FAUNA AND VEGETATION ALONG THE LARGE SKAGERRAK- BALTIC ESTUARINE GRADIENT.

Nohrén Emma, Inst. Of Marine Ecology, University of Gothenburg, Sweden.

BENTHIC COMMUNITY-MEDIATED SEDIMENT DYNAMICS.

Montserrat Francesc, Spatial Ecology, The Netherlands.  
Van Colen Carl; Degraer Steven, Marine Biology, Ghent University, Ghent, Belgium.  
Ysebaert Tom; Herman Peter, Spatial Ecology, NIOO-CEME, Yerseke, The Netherlands.

DIVERSITY OF RHODOPIRELLULA STRAINS IN EUROPEAN SEAS

Harder Jens, Dep. of Microbiology, Max-Planck-Institute for Marine Microbiology, Germany.  
Winkelmann Nadine; Jael Urike, Dep. of Microbiology, Max-Planck-Institute of Marine Microbiology, Bremen, Germany.  
Rosello-Mora Ramon, Institut Mediterrani d'Estudis Avançats (CSIC UIB), Spain (Esaorles).

COPEPODA HARPACTICOIDA FROM THE RÍA DE FERROL (NW IBERIAN PENINSULA): PRELIMINARY RESULTS.

Candás Romero María, Estación de Biología Mariña da Graña, Spain.  
Martínez Arbizu Pedro, Deutsches Zentrum für Marine Biodiversitätsforschung, Forschungsinstitut Senckenberg, Wilhelmshaven, Germany.  
Ugorri Victoriano, Estación de Biología Mariña da Graña - Departamento de Biología Animal e Instituto de Acuicultura, Universidade de Santiago de Compostela, Santiago de Compostela, Spain.

A "HOT SPOT" FOR LEPTOSTRACAN DIVERSITY (CRUSTACEA: LEPTOSTRACA): THE GALICIAN RÍAS (NW IBERIAN PENINSULA).

Juan Moreira Da Rocha; Candás María; Díaz-Agras Guillermo; García Alexandre; Pérez-Señaris Marcos; Tato Ramiro; Varela Catarina; Ugorri Victoriano; Estación de Biología Mariña da Graña, Universidade de Santiago de Compostela, Spain.

BENTHIC AND BIOGEOCHEMICAL RECOVERY AFTER AN INDUCED HYPOXIC EVENT: THE STRUCTURING ROLE OF MACROFAUNA SUCCESSION.

Van Colen Carl; Vincx Magda, Marine Biology Section, Ghent University, Belgium.  
Montserrat Francesc; Middelburg Jack; Herman Peter; Andersson Maria; Rossi Francesca;; Gribsholt Britta; Ysebaert Tom, Centre for Estuarine and Marine Ecology, Netherlands Institute of Ecology, Yerseke, the Netherlands.

SPECIES AND FUNCTIONAL DIVERSITY CORRELATION IN COASTAL BENTHIC COMMUNITIES.

Koutsoubas Drosos; Dimitriadis Charalampos; Agriannis Kostantinos; Evagelopoulos Athanassios;; Dept. Marine Sciences, School of Environmental Studies, University of the Aegean, Greece.

NICHE CONSTRUCTION AND BIODIVERSITY IN ESTUARINE SOFT SEDIMENTS.

Weinmann Birgit, School of Biology, University of St Andrews, UK.

WHICH GORGONIAN SPECIES CAN BE ENDANGERED BY CLIMATE ANOMALIES?

Previati Monica; Osinga Ronald, Aquaculture & Fisheries Group, Wageningen University, Netherlands.  
Scinto Alice; Cerrano Carlo, Dip.Te.Ris, University of Genoa, Genoa, Italy.

COMMUNITY AND TROPHIC DIVERSITY OF CONTINENTAL SHELF FAUNA IN THE CATALAN SEA.

Zucca Leda; Cartes Joan; Maynou Francesc, Consejo Superior de Investigaciones Científicas, Institut de Ciències del Mar, Spain.

MICROPHYTOBENTHIC PRODUCTION IN PRESENT AND FUTURE CO<sub>2</sub> CLIMATES.

Hicks Natalie, Sediment Ecology Research Group, Gatty Marine Institute, University of St Andrews, Scotland.

OCEAN ACIDIFICATION, LIFE HISTORIES AND DEVELOPMENTAL PLASTICITY IN MARINE INVERTEBRATES.

Thorndyke Michael, Marine Ecology, Sven Lovén Institute for Marine Sciences-Kristineberg, Sweden.  
Dupont Sam, Dept. Marine Ecology, Kristineberg, Göteborg, Sweden.

**Session 2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships**

Chairs: Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi

THE IMPACT OF SEABED DISTURBANCE ON THE DIVERSITY OF MEIOFAUNA COMMUNITIES? LINKING FIELD AND LABORATORY OBSERVATIONS.

Schratzberger Michaela, Lowestoft Laboratory, Centre for Environment, Fisheries and Aquaculture Science, United Kingdom.  
Lampadariou Nikolaos, Institute of Oceanography, Hellenic Centre for Marine Research, Iraklion, Greece.  
Sommerfield Paul, Plymouth Marine Laboratory, Plymouth, United Kingdom.  
Vandepitte Leen, Flanders Marine Institute, Oostende, Belgium.  
Vanden Berghe Edward, Rutgers University, Institute of Marine and Coastal, New Brunswick, USA.

CHANGES IN BENTHIC DIVERSITY AND ECOSYSTEM FUNCTION IN RESPONSE TO ORGANIC ENRICHMENT FROM FISH FARMING.

Papageorgiou Nafsika, Kalantzi Ioanna; Apostolaki Eugenia; Sevastou Katerina; Karakassis Ioannis, Biology Department, University of Crete, Crete.

NEMATODE SIZE AND SHAPE FROM THE SHELF TO THE DEEP SEA: ADAPTATIONS TO BENTHIC ECOSYSTEM FUNCTIONING.

Vanaverbeke Jan; Franco Maria; Steyaert Maaïke;; Marine Biology Section, Ghent University, Belgium.  
Lampadariou Nikolaos, Hellenic Centre for Marine Research, Heraklion, Greece.

Muthumbi Agnes, Department of Zoology, University of Nairobi, Nairobi, Kenya.  
Vandepitte Leen; Vanden Berghe Edward, VLIZ, Oostende, Belgium,  
Soetaert Karlina, NIOO-CEME, Yerseke, The Netherlands.

EXPLORING PATTERNS OF BIODIVERSITY, FUNCTION AND EXTERNAL FORCING IN A GULF OF MAINE LANDSCAPE

Ellis, Sara; Incze, Lewis; Wolff, Nicholas; Gulf of Maine Area Census of Marine Life, University of Southern Maine, USA  
Auster, Peter, University of Connecticut, USA  
Lawton, Peter, St. Andrews Biological Station, Canada

MARINE BIOFILM BACTERIA DEVELOPING ON TEST PANELS DYED BY SOME ANTIFOULING PAINTS IN THE MARINA OF IZMIR BAY, TURKEY.

Kacar Asli; Cihangir Bulent, Microbiology, Marine Sciences and Technology, Turkey.  
Kocuyigit Ali; Ozdemir Guven, Microbiology, Science Faculty, Izmir, Turkey.

ANTHROPOGENIC DISTURBANCE OF DEEP-SEA MEGABENTHIC ASSEMBLAGES: A STUDY WITH REMOTELY-OPERATED VEHICLES IN THE FAROE-SHETLAND CHANNEL, NE ATLANTIC.

Jones Daniel, Ocean Biogeochemistry and Ecosystems, National Oceanography Centre, Southampton, UK.

THE RELATIONSHIP BETWEEN BIODIVERSITY AND FUNCTIONING OF SOFT SEDIMENT ECOSYSTEMS WITH VARIABLE REGIMES OF DIVERSITY AND DISTURBANCE.

Aspden Rebecca, School of Biology, University St Andrews, Scotland.  
Paterson David, University St Andrews, Scotland.  
Rossi Francesca, Netherlands institute of Ecology, Centre for Estuarine and Marine Ecology, Department of Ecosystems Studies, Netherlands.

EFFECT OF BIODIVERSITY ON THE STABILITY OF MARINE COMMUNITIES EVIDENCE FROM META-ANALYSIS OF EXPERIMENTAL STUDIES.

Bulleri Fabio; Cusson Mathieu; Benedetti-Cecchi Lisandro, Dipartimento di Biologia, Universitat di Pisa, Italy.  
Kotta Jonne, Estonian Marine Institute, Tallinn, Estonia.  
Crowe Tasman Peter, Department of Zoology, University College Dublin, Dublin, Ireland.  
EXPERIMENTAL EVALUATION OF THE ROLE OF SE-

AGRASSES IN THE RESISTANCE AND RESILIENCE OF SEDIMENT FUNCTIONING TO ORGANIC MATTER LOADING.

Terrados Jorge, Ecology and Marine Resources, IMEDEA (CSIC-UIB) Instituto avanzado de estudios avanzados, Spain.  
Asmus Raghild, Alfred Wegener Institute for Polar and Marine Research, Sylt, Germany.  
Kotta Jonne, Marine Biology, Estonian Marine Institute, University of Tartu, Tallinn, Estonia.

NOVEL IN-SITU TECHNIQUES FOR LINKING BIOLOGICAL ACTIVITY TO SEDIMENT FUNCTION.

Teal Lorna, Oceanlab, University of Aberdeen, Scotland.  
Parker Ruth, CEFAS, Lowestoft, England.  
Fones Gary, SEES, University of Plymouth, Plymouth England.  
Solan Martin, Oceanlab, University of Aberdeen, Newburgh, Scotland.

RECRUITMENT OF BENTHIC COMMUNITIES ON ARTIFICIAL PANELS LOCATED OVER VEGETATED SUBSTRATES (POSIDONIA OCEANICA MEADOWS) AND SANDY BOTTOMS.

Cabanellas-Reboredo Miguel; Deudero Salud, Biology, University of Balearic Islands, Spain.  
Hendriks Iris Eline, Litoral Ecology, IMEDEA (CSIC-UIB), Palma of Majorca, Spain.

## Session 2.5 Marine Bioinvasions And Ecosystem Functioning

Chairs: Sergej Olenin; Anna Occhipinti  
Ambrogi; Stephan Gollasch

CONTRASTING HYDRODYNAMICS AND PARTICLE TRAPPING RATES IN SEAGRASS AND ALGAE OF THE CAULERPA FAMILY.

Hendriks Iris; Duarte Carlos, Litoral Ecology, IMEDEA (CSIC-UIB), Spain.  
Bouma Tjeerd, Spatial Ecology, NIOO-KNAW, CEME, Yerseke, the Netherlands.  
Morris Edward, University of Cádiz, Cadiz, Spain.

INVASIONS OF LOPHOCLADIA LALLEMANDII ENHANCE SEAGRASS (POSIDONIA OCEANICA) LOSS.

Marbà Núria, Global Change, Institut Mediterrani d'Estudis Avançats (UIB-CSIC), Spain.  
Alcoverro Teresa, Centre d'Estudis Avançats de Blanes (CSIC), Blanes, Spain.  
Arthur Rohan, Nature Conservation Foundation, Mysore, India.

IMPACTS OF THE INVASIVE DINOFLAGELLATE PROROCENTRUM MINIMUM (PAVILLARD) SCHILLER ON PELAGIC HABITAT AND PHYTOPLANKTON COMMUNITY IN THE BALTIC SEA.

Olenina Irina, Coastal Research and Planning Institute, Klaipeda University, Lithuania.

THE ELECTRONIC JOURNAL "AQUATIC INVASIONS": AN ONLINE INFORMATION TOOL TO SUPPORT RISK ASSESSMENTS AND EARLY WARNING SYSTEMS ON AQUATIC INVASIVE SPECIES.

Panov Vadim, Centre for ecological research and monitoring, St. Petersburg state university, Russian Federation.  
Gollasch Stephahn, GoConsult, Hamburg, Germany.

EFFECTS OF NUTRIENTS FLUCTUATION ON THE ESTABLISHMENT OF THE INVASIVE ALGAE SARGASSUM MUTICUM.

Olabarria Uzquiano Celia; Souza Troncoso Jesús; López Pérez Jesús, Ecología y Biología Animal, Facultad de Ciencias del Mar, Universidad de Vigo, Spain.  
Incera Filgueira Mónica, Área de Promoción y Transferencia de Tecnología, Centro Tecnológico del Mar-Fundación CETMAR, Vigo, Spain.

CORBICULA FLUMINEA (O.F. MÜLLER, 1774) (BIVALVIA: CORBICULIDAE), AN ALIEN ASIATIC CLAM IN POLAND.

Wawrzyniak-Wydrowska Brygida, Department of Paleooceanology, University of Szczecin, Poland.

THE AMERICAN COMB JELLY (MNEMIOPSIS LEIDYI) IN THE BALTIC SEA - INVASION HISTORY AND POSSIBLE FOOD WEB EFFECTS.

Lehtiniemi Maiju; Vitasalo Satu; Katajisto Tarja, Biological Oceanography, Finnish Institute of Marine Research, Finland.

## Session 4.2 Societal and economic benefits of marine biodiversity.

Chairs: Juan Carlos Castilla; Lalit P. Chaudari; Narendra Kumar Choudhary; Stefan Gelcich; Annette Kimmich; Carolyn Scheurle; Micalis Skourtos; Alyne Delaney; Poul Holm; Melanie Austen.

TASTING THE WEALTH OF SEAFOOD BIODIVERSITY THROUGHOUT EUROPE.

Fockedeey Nancy, Communication, Flanders Marine Institute, Belgium.

ECONOMIC AND SOCIOCULTURAL VALUATION OF MARINE BIODIVERSITY.

Ruiz Ana; Kaiser Michael, School of Ocean Sciences, University of Bangor, United Kingdom.  
Jones Edward-Gareth, School of Environment and Natural Resources, University of Bangor, Bangor/U.K.  
Delaney Alyne, Inoovative Fisheries Management, Aalborg University Research Centre, Hirtshals, Denmark.

A TOTAL ECONOMIC VALUATION OF THE GOODS AND SERVICES PROVIDED BY MARINE BIODIVERSITY FOR USE IN MARINE SPATIAL PLANNING.

Rees Sian, Marine Institute, University of Plymouth, England.

MARINE GENETIC RESOURCES: RESEARCH, COMMERCIAL EXPLOITATION AND BENEFIT-SHARING. AN ECONOMIC AND LEGAL PERSPECTIVE".

Pierluigi Bozzi, Environmental Economics, University of Rome "La Sapienza", Italy.  
Ribadeneira Sarmiento Monica, Quito, Ecuador.

**Session 4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, And Scientific Knowledge Work Together**  
Chairs: Jake Rice; Heye Rumohr.

SPONGES OF THE CHINESE YELLOW SEA: A FAUNAL COMMUNITY UNDER HIGH ANTHROPOGENIC PRESSURE.

Henkel Daniela; Janussen Dorte, Marine Zoology, Research Institute, Germany.  
Brümmer Franz, Biological Institute, Zoology, University of Stuttgart, Stuttgart, Germany.  
Zhang Wei, Marine Bioproducts Engineering Group, Dalian Institute of Chemical Physics, Dalian, China.

CULTURAL VALUES AND CONSERVATION STRATEGIES - SOCIO-CULTURAL CONTRIBUTION TO MARINE ECOSYSTEM GOODS AND SERVICES.

Marboe Anne Husum, Department of Environmental, Social and Spatial Change, Roskilde University, Denmark.

BIOMARES, A LIFE PROJECT TO RESTORE AND MANAGE THE BIODIVERSITY OF LUIZ SALDANHA MARINE PARK.

Cunha Alexandra; Erzini Karim; Serrao Ester, CCMAR, Edificio 7, University of Algarve, Portugal.  
Gonçalves Emanuel, ISPA, Lisbon, Portugal.  
Henriques Miguel, PNA, ICNB, Setúbal, Portugal.  
Henriques Victor, IPIMAR, INRB, Lisbon, Portugal.  
Marbá Núria; Duarte Carlos, IMEDEA, CSIC, Esporles, Spain.

MODELLING HABITAT DISTRIBUTION AND MACROBENTHIC BIODIVERSITY, WITHIN THE BASQUE CONTINENTAL SHELF.

Galparsoro Ibon; Chust Guillem; Muxika Iñigo; Rodríguez J. Germán; Borja Ángel, Azti-Tecnalia, Spain.

MAPPING ROCKY SUBTIDAL COMMUNITIES IN THE ALGARVE AND USING THIS TOOL AS A PLATFORM TO UNDERWATER SUSTAINABLE ECOTOURISM. A CASE STUDY.

Rangel Mafalda, University of Algarve - Coastal Fisheries Research Group, Faculdade de Ciências do Mar e Ambiente, Portugal.

EVALUATING THE CONSERVATION STATUS OF MEDITERRANEAN MARINE FISH AND IDENTIFYING CONSERVATION PRIORITIES.

Cuttelod Annabelle, International Union for Conservation of Nature, IUCN Centre for Mediterranean Cooperation, Spain.

ARGENTINEAN MARINE INVERTEBRATES: PRESENT AND POTENTIAL PROBLEMS ON CONSERVATION AND MANAGEMENT.

Bigatti Gregorio, Biología y Manejo de Recursos Acuáticos, Centro Nacional Patagónico CENPAT - CONICET, Argentina.

MAERL CONSERVATION PLAN IN GALICIA (NW SPAIN): AN EXAMPLE OF HOW THE RESEARCH CAN BE AN OPTIMAL BASELINE FOR CONSERVATION MANAGEMENT.

Peña Freire Viviana; Bárbara Criado Ignacio, Biología Animal, Biología Vegetal y Ecología, Universidad de A Coruña, Spain.

THE MEDITERRANEAN MARINE HABITATS IN THE "EU.N.I.S." EUROPEAN SYSTEM.

Tunesi Leonardo, Marine Habitat and Biodiversity Conservation, ICRAM - Central Institute for Marine Applied Research, Italy.  
Moss Dorian, Dorian Ecological Information Ltd, Oakham, United Kingdom.  
Evans Doug, European Topic Centre on Biodiversity, France.  
Mo Giulia, Marine Habitat and Biodiversity Conser-

vation, ICRAM - Central Institute for Marine Applied Research, Roma, Italy.

WHAT IS BIOMARA

Michele Stanley, Scottish Association for Marine Science, UK

THE CARIBBEAN - A CASE STUDY, WITH EMPHASIS ON TRINIDAD AND TOBAGO.

Gobin Judith, Life Sciences, University of West Indies, Trinidad and Tobago,

MARINE BIODIVERSITY INFORMATION RESOURCES TO SUPPORT ENVIRONMENTAL MANAGEMENT AND DECISION-MAKING - THE MARINE LIFE INFORMATION NETWORK .

Tyler-Walters Harvey; Lear Dan; Parr Jon; Baker Guy, Marine Life Information Network, Marine Biological Association, United Kingdom.

ERASMUS MUNDUS MASTER OF SCIENCE IN MARINE BIODIVERSITY AND CONSERVATION.

Deprez Tim; Vincx Magda, Marine Biology Research Group, Ghent University, Belgium.

**Session 4.4 Emerging Paradigms In Coastal Research And Related Management And Policy Implications**

Chairs: Natarajan Ishwaran; Patricio Bernal; Jerry Melillo; Maria-Lourdes Palomares

PROMOTING SUSTAINABLE HUMAN SETTLEMENTS AND ECO-CITY PLANNING APPROACH: SOUTHEASTERN ANATOLIA REGION AND SOUTHEASTERN ANATOLIA PROJECT(GAP) IN TURKEY AS A CASE STUDY.

Acma Bulent, Economics, Anadolu University, Turkey.

## 14- Daily program

Monday Nov. 10.

16:00 to 19:00 Registration

17:00 Opening of "Deeper than Light" Exhibition.

19:30 to 21:00 **Welcome reception**, "Lonja" Restaurant, Oceanografic.

## Tuesday Nov. 11

09:00 - 10:00 **Registration**

10:00 - 11:00 **Opening Ceremony, Mar Rojo Auditorium, Oceanografic**

Ms. Manuela Soares, Director, European Commission, Directorate General for Research, Directorate I:

Environment.

Local Authorities

WCMB Co-Chairs, Dr. Carlo Heip (NIOO, The Netherlands) and Dr. Carlos M. Duarte, IMEDEA (CSIC-UIB, Spain).

11:00 - 11:30. **Plenary Lecture** at Mar Rojo Auditorium, Oceanografic. Carlo Heip, "Marine Biodiversity and Ecosystem Functioning: Loose Connection or Essential Link?"

11:30 - 12:00 **Coffee Break, at Lonja Restaurant, Oceanografic.**

12:00 - 13:00 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **What lived in the oceans? Shifting baselines in time and space**

(Chairs: Bo Poulsen; Loren McClenachan; Andrew A. Rosenberg; Matthew McKenzie)

Santiago Grisolia Auditorium, Museum; **1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray**

(Chairs: Paul Somerfield and Richard Warwick)

Polivalente Room, Museum; **1.9 The Coral Triangle: patterns and processes in marine species richness and habitat diversity**

(Chairs: Bert W. Hoeksema; Michael N. Dawson; Gustav Paulay; Annadel Cabanban)

13:30 - 15:00 **Lunch break.** Lunch on your own.

15:00 - 16:00 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **1.3 Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems**

(Chairs: Pedro Martinez Arbizu; Andrew Gooday; Ana Colaco; Adrian Glover; Stefanie Keller)

Santiago Grisolia Auditorium, Museum; **1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray**

(Chairs: Paul Somerfield and Richard Warwick)

Polivalente Room, Museum; **1.9 The Coral Triangle: patterns and processes in marine species richness and habitat diversity**

(Chairs: Bert W. Hoeksema; Michael N. Dawson; Gustav Paulay; Annadel Cabanban)

16:00 - 16:30 **Coffee Break**, at Lonja Restaurant, Oceanografic; and Museum Hall, Museum.

16:30 - 18:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **1.11 The taxonomic component of marine biodiversity**

(Chairs: Geoff Boxshall; Christos Arvanitidis)

Santiago Grisolia Auditorium, Museum; **2.2 Biodiversity & Ecosystem Shifts: Viewed from the Bottom**

**Up** (Chairs: John R. Dolan; Wiebe Kooistra) Polivalente Room, Museum; **1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray**

(Chairs: Paul Somerfield and Richard Warwick)

18:30 - 19:30 **Poster Session A.** Arquerías Hall, Museum.

## Wednesday, Nov. 12

09:00 - 10:00 **Plenary Lectures** at Mar Rojo Auditorium, Oceanografic.

09:00 - 09:30 **Jeff Huisman**

9:30 - 10:00 **Philippe Bouchet**

10:00 - 10:30 **Coffee Break**, at Lonja Restaurant, Oceanografic.

10:30 - 13:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic, **1.1 Marine Biodiversity in Polar Regions**

(Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart)

Santiago Grisolia Auditorium, Museum, **3.1 Assessing the consequences of large-scale biodiversity change**

(Chairs: Boris Worm; Heike K. Lotze)

Polivalente Room, Museum, **2.5 Marine bioinvasions and ecosystem functioning**

(Chairs: Sergej Olenin; Anna Occhipinti Ambrogio; Stephan Gollasch)

13:30 - 15:00 **Lunch break.** Lunch on your own.

15:00 - 16:00 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **1.1 Marine Biodiversity in Polar Regions**

(Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart)

Santiago Grisolia Auditorium, Museum, **1.3 Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems**

(Chairs: Pedro Martinez Arbizu; Andrew Gooday; Ana Colaco; Adrian Glover; Stefanie Keller)

Polivalente Room, Museum, **4.1 Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications**

(Chairs: Adrianna Ianora; Angelo Fontana)

16:00 - 16:30 **Coffee Break**, at Lonja Restaurant, Oceanografic; and Museum Hall, Museum.

16:30 - 18:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **1.1 Marine Biodiversity in Polar Regions**

(Chairs: Paul Renaud; Angelika Brandt; Michael Stoddart)

Santiago Grisolia Auditorium,

**2.3 Ecosystem Functioning and Biodiversity Science in the Deep sea**

(Chairs: Inge Jonckheere; Françoise Gaill; Eva Ramirez-Llodra; Michail Yakimov; Christian Stenseth; Lisandro Benedetti-Cecchi)

Museum, and Polivalente Room, Museum, **4.1 Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications**

(Chairs: Adrianna Ianora; Angelo Fontana)

18:30 - 19:30 **Poster Session A.** Arquerías Hall, Museum.

19:00 - 20:00 **Round Table**, Museum.

## Thursday, Nov. 13

09:00 - 10:00 **Plenary Lectures** at Mar Rojo Auditorium, Oceanografic.

09:00 - 09:30 **Daniel Pauly**

09:30 - 10:00 **Mark Costello**

10:00 - 10:30 **Coffee Break**, at Lonja Restaurant, Oceanografic.

10:30 - 13:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic, **1.5 Open ocean pelagic and benthopelagic diversity: patterns and monitoring**

(Chairs: Odd Aksel Bergstad; Ann Bucklin; Tone Falkenhaug; Uwe Piatkowski)

Santiago Grisolia Auditorium, **1.8 Marine biogeography and comparative phylogeography: joining paleontologists, taxonomists, ecologists and geneticists**

(Chairs: Anne Chenuil; Filipe Alberto)

Museum, and Polivalente Room, Museum, **2.5 Marine bioinvasions and ecosystem functioning**

(Chairs: Sergej Olenin; Anna Occhipinti Ambrogio; Stephan Gollasch)

13:30 - 15:00 **Lunch break.** Lunch on your own.

15:00 - 16:00 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **2.1 Coastal marine benthic biodiversity and ecosystem process under uncertain environmental futures**

(Chairs: Martin Solan; Dave Paterson; Dave Raffaelli; Piran Whit)

Santiago Grisolia Auditorium, Museum, **1.4 Discoveries from integrated data systems**

(Chairs: Ward Appeltans; Mark J. Costello; Edward Vanden Berghe)

Polivalente Room, Museum, **3.3 Fish and fisheries: genes to global market**

(Chairs: Reinhold Hanel; Mikko Heino)

16:00 - 16:30 **Coffee Break**, at Lonja Restaurant, Oceanografic; and Museum Hall, Museum.

16:30 - 18:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **2.1 Coastal marine benthic biodiversity and ecosystem process under uncertain environmental futures**

(Chairs: Martin Solan; Dave Paterson; Dave Raffaelli; Piran Whit)

Santiago Grisolia Auditorium, Museum, **1.4 Discoveries from integrated data systems**

(Chairs: Ward Appeltans; Mark J. Costello; Edward Vanden Berghe)

Polivalente Room, Museum, **3.3 Fish and fisheries: genes to global market**

(Chairs: Reinhold Hanel; Mikko Heino)

18:30 - 19:30 **Poster Session B.** Arquerías Hall, Museum.

20:00 - 21:30 **Conference Dinner**

## Friday, Nov. 14

09:00 - 10:00 **Plenary Lectures** at Mar Rojo Auditorium, Oceanografic.

09:00 - 09:30. **Juan Carlos Castilla**

09:30 - 10:00 **Dolf de Groot**

10:00 - 10:30 **Coffee Break**, at Lonja Restaurant, Oceanografic.

10:30 - 13:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic, **2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships**

(Chairs: Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi)

Santiago Grisolia Auditorium, Museum, **4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, and Scientific Knowledge Work Together**

(Chairs: Jake Rice; Heye Rumohr)

Polivalente Room, Museum, **4.4 Emerging paradigms in coastal research and related management and policy implications**

(Chairs: Natarajan Ishwaran; Patricio Bernal; Jerry Melillo; Maria-Lourdes Palomares)

13:30 - 15:00 **Lunch break.** Lunch on your own.

15:00 - 16:00 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships**

(Chairs: Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi)

Santiago Grisolia Auditorium, Museum, **4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, and Scientific Knowledge Work Together**

(Chairs: Jake Rice; Heye Rumohr)

16:00 - 16:30 **Coffee Break**, at Lonja Restaurant, Oceanografic; and Museum Hall, Museum.

16:30 - 18:30 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic, **1.7 Biodiversity of Deep Continental Margins: Local to Global Patterns and Processes**

(Chairs: Myriam Sibuet)

Santiago Grisolia Auditorium, Museum, **4.2 Societal and Economic Benefits of Marine Biodiversity**

(Chairs: Juan Carlos Castilla; Lalit P. Chaudhari; Narendra Kumar Choudhary; Stefan Gelcich; Annette

Kimmich; Carolyn Scheurle; Michalis Skourtos, Alyne Delaney; Poul Holm; Melanie Auste)

18:30 - 19:30 **Poster Session B.** Arquerías Hall, Museum. CoML Reception

## Saturday, Nov. 15

09:00 - 10:00 **Plenary Lectures** at Mar Rojo Auditorium, Oceanografic.

09:00 - 09:30. **Adriana Ianora**

09:30 - 10:00 **Antje Boetius**

10:00 - 10:30 **Coffee Break**, at Lonja Restaurant, Oceanografic.

10:30 - 13:00 **Parallel Sessions.**

Mar Rojo Auditorium, Oceanografic; **1.6 Biodiversity, Biogeography, and Vulnerability of Deep-Water Seamount and Chemosynthetic Ecosystems**

(Chairs: Tim Shank; Paul A. Tyler)

Santiago Grisolia Auditorium, Museum, **1.2 Recent discoveries in Marine Biodiversity**

(Chairs: Graham Shimmield; Bhavani Narayanaswamy)

13:00 - 13:30 **Closing of Conference.**

## 15- Activities for children

Available Monday to Friday from 16:00 – 19:00 and in weekends 11:00-14:00 and 15:30 – 18:30.

Free entry for children of all ages to Espai dels Xiquets, accompanied by an adult. Use of facilities and general themes will be explained by the supervisors.

L’Espai dels Xiquets, on the first floor of the museum, is a workshop targeted at children in the age-group 4 to 7 years. It is a place for fun and learning, which has as goal to stimulate the perception of the children of the world around them. At the same time the capacity to analyze and scientific curiosity is stimulated.

### There are two activities:

- The unfinished house (A construction game for groups. Stimulates communication and relations between children.)
- A walk through the museum

### General rules Espai dels Xiquets:

- Recommended for children from 4 to 7 years (although entry is not limited to this age-group)
- Maximum 25 children within the facilities
- Maximum time within the facilities 1 hour
- Admittance on order of arrival
- All children need to be accompanied by an adult
- Children >10 years cannot participate in the “unfinished house” (Casa Inacabada)
- Once a session starts, and is not full, participants need to enter within 15 minutes after the start to be able to participate in the session
- If visitors want to leave before a session is finished they have to warn the supervisor
- Never touch the animals without supervision of a monitor
- The use of the bathrooms is restricted to children
- When participation is low children may enter accompanied by more than one adult

## 16- Discounts and offers

### Benefits to Participants

In addition to the activities described in the program, registered participants will have access to all the facilities of the CAC (L’Oceanographic Aquarium and Museum of Arts and Sciences) free of charge at the time of access (10 - 18:00 Oceanographic, 10 - 19:00 for the Museum), while accompanying persons will benefit from a reduced rate:

#### 1. Individual Entrances:

15% discount on any type of entrance to the ‘Ciudad de las Artes y las Ciencias’. The discount will be applied at the ticket office when accredited as congress participant.

The same discount will be applied to entrances purchased with business vouchers (Bonos de Empresa; 15%). Payment with credit only. These vouchers are only valid for the duration of the congress. If you are interested in obtaining this type of entrances, please contact the vending department. Contact: Vanesa Borrás tel: (+34) 961974566; email: bborras@cac.es

#### 2.- Group entrances:

Discounts for small groups will be applied:

L’HEMISFÈRIC	4,50
MUSEO	4,50
L’OCEANOGRÀFIC	13,30
L’HEMISFÈRIC + MUSEO	6,80
L’HEMISFÈRIC + L’OCEANOGRÀFIC	14,65
MUSEO + L’OCEANOGRÀFIC	14,65
L’HEMISFÈRIC + MUSEO + L’OCEANOGRÀFIC	18,00

There is the possibility to get a guide for your group visits. Please consult prices and availability.

#### 3.- Discounts in shops and restaurants:

Registered participants will enjoy a 10% discount in the shops of the Ciudad de las Artes y las Ciencias upon display of their badge.

Discount in restaurants of the Museo and Hemisferic 10%, and in the Oceanografico 20% for congress attendees.

Registered participants have free access to a especial pass of the Deep Sea iMax movie at the hemisferic on Tuesday November 11, 20:00.

# 17- Glossary

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		Red Sea	Museum	Polivalente
09:00 10:00		Registration		
10:00 10:30		Opening Session		
10:30 13:30				
11:00 11:30		C.Heip		
11:30 12:00		Coffee Break		
11:30 13:30		3.2 What lived in the oceans? Shifting baselines in time and space Bo Poulsen; Loren McClenachan; Andrew A. Rosenberg; Matthew McKenzie)	1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray (Paul Somerfield and Richard Warwick)	1.9 The Coral Triangle: patterns and processes in marine species richness and habitat diversity Bert W. Hoeksema; Michael N. Dawson; Gustav Paulay; Annadel Cabanban()
13:30 15:00		Lunch		
15:00 16:00		1.3 Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems (Pedro Martinez Arbizu; Andrew Gooday; Ana Colaco; Adrian Glover; Stefanie Keller)	1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray (Paul Somerfield and Richard Warwick)Glover; Stefanie Keller)	1.9 The Coral Triangle: patterns and processes in marine species richness and habitat diversity Bert W. Hoeksema; Michael N. Dawson; Gustav Paulay; Annadel Cabanban()
16:00 16:30	Registration	Coffee Break		
16:30 18:30		1.11 The taxonomic component of marine biodiversity Geoff Boxshall; Christos Arvanitidis)	2.2 Biodiversity & Ecosystem Shifts: Viewed from the Bottom Up ( John R. Dolan; Wiebe Kooistra)	1.10 Patterns and drivers in the distribution of marine biodiversity: in homage to John Gray (Paul Somerfield and Richard Warwick)Glover; Stefanie Keller)
18:30 19:30		Poster Session A		
19:30 21:00	Wellcome cocktail			

	12 Noviembre			
		Red Sea	Museum	Polivalente
09:00 10:00		Jef Huisman Philippe Bouchet		
10:00 10:30		Coffee Break		
10:30 13:30		1.1 Marine Biodiversity in Polar Regions (Paul Renaud; Angelika Brandt; Michael Stoddart)	3.1 Assessing the consequences of large-scale biodiversity change (Boris Worm; Heike K. Lotze)	2.5 Marine bioinvasions and ecosystem functioning (Sergej Olenin; Anna Occhipinti Ambrogi; Stephan Gollasch)
13:30 15:00		Lunch		
15:00 16:00		1.1 Marine Biodiversity in Polar Regions (Paul Renaud; Angelika Brandt; Michael Stoddart)	1.3 Deep-sea and extreme environments: temporal and spatial patterns among species and ecosystems (Pedro Martinez Arbizu; Andrew Gooday; Ana Colaco; Adrian Glover; Stefanie Keller)	4.1 Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications (Adrianna Ianora; Angelo Fontana)
16:00 16:30		Coffee Break		
16:30 18:30		1.1 Marine Biodiversity in Polar Regions (Paul Renaud; Angelika Brandt; Michael Stoddart)	2.3 Ecosystem Functioning and Biodiversity Science in the Deep sea (Inge Jonckheere; Françoise Gaill; Eva Ramirez-Llodra; Michail Yakimov; Christian Stenseth; Lisandro Benedetti-Cecchi)	4.1 Biodiversity and bioprospecting: Ecological roles of marine natural products and biotechnological applications (Adrianna Ianora; Angelo Fontana)
18:30 19:30		Poster Session A		
20:00 21:00		Policy Round Table		

13 Noviembre			
	Red Sea	Museum	Polivalente
09:00 10:00	Daniel Pauly Mark Costello		
10:00 10:30	Coffee Break		
10:30 13:30	1.5 Open ocean pelagic and benthopelagic diversity: patterns and monitoring (Odd Aksel Bergstad; Ann Bucklin; Tone Falkenhaus; Uwe Piatkowski)	1.8 Marine biogeography and comparative phylogeography: joining paleontologists, taxonomists, ecologists and geneticists (Anne Chenuil; Filipe Alberto) Falkenhaus; Uwe Piatkowski)	2.5 Marine bioinvasions and ecosystem functioning (Sergej Olenin; Anna Occhipinti Ambrogi; Stephan Gollasch)
13:30 15:00	Lunch		
15:00 16:00	2.1 Coastal marine benthic biodiversity and ecosystem process under uncertain environmental futures (Martin Solan; Dave Paterson; Dave Raffaelli; Piran Whit) Falkenhaus; Uwe Piatkowski)	1.4 Discoveries from integrated data systems (Ward Appeltans; Mark J. Costello; Edward Vanden Berghe) Paterson; Dave Raffaelli; Piran Whit) Falkenhaus; Uwe Piatkowski)	3.3 Fish and fisheries: genes to global market (Reinhold Hanel; Mikko Heino)
16:00 16:30	Coffee Break		
16:30 18:30	2.1 Coastal marine benthic biodiversity and ecosystem process under uncertain environmental futures (Martin Solan; Dave Paterson; Dave Raffaelli; Piran Whit)	1.4 Discoveries from integrated data systems (Ward Appeltans; Mark J. Costello; Edward Vanden Berghe) Paterson; Dave Raffaelli; Piran Whit) Falkenhaus; Uwe Piatkowski)	3.3 Fish and fisheries: genes to global market (Reinhold Hanel; Mikko Heino)
18:30 19:30	Poster Session B		
20:00 21:00	Symposium Dinner		

14 Noviembre			
	Red Sea	Museum	Polivalente
09:00 10:00	Juan Carlos Castilla Dolf de Groot		
10:00 10:30	Coffee Break		
10:30 13:30	2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships (Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi)	4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, and Scientific Knowledge Work Together (Jake Rice; Heye Rumohr)	4.4 Emerging paradigms in coastal research and related management and policy implications (Natarajan Ishwaran; Patricio Bernal; Jerry Melillo; Maria-Lourdes Palomares)
13:30 15:00	Lunch		
15:00 16:00	2.4. Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships (Magda Vincx; Katja Philippart; Tasman Crowe; Steve Hawkins; Lisandro Benedetti-Cecchi)	4.3 Conserving Marine Biodiversity: Making Policy, Management Tools, and Scientific Knowledge Work Together (Jake Rice; Heye Rumohr)	
16:00 16:30	Coffee Break		
16:30 18:30	1.7 Biodiversity of Deep Continental Margins: Local to Global Patterns and Processes (Myriam Sibuet)	4.2 Societal and Economic Benefits of Marine Biodiversity (Juan Carlos Castilla; Lalit P. Chaudhari; Narendra Kumar Choudhary; Stefan Gelcich; Annette Kimmich; Carolyn Scheurle; Michalis Skourtos, Alyne Delaney; Poul Holm; Melanie Auste)	
18:30 19:30	Poster Session B		

15 Noviembre			
	Red Sea	Museum	
09:00 10:00	Adriana Ianora Antje Boetius		
10:00 10:30	Coffee Break		
10:30 13:30	1.6 Biodiversity, Biogeography, and Vulnerability of Deep-Water Seamount and Chemosynthetic Ecosystems (Tim Shank; Paul A. Tyler)	1.2 Recent discoveries in Marine Biodiversity (Graham Shimmield; Bhavani Narayanaswamy)	
13:00 13:30	Closure of Symposium		



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