



## European Master of Science in Marine Environment and Resources

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MER CONSORTIUM (SOTON, UPV/EHU, UBx 1, AZTI, OFG)

Ref. MO2006-00744

JOINT EUROPEAN POSTGRADUATE STUDIES - Mención de Calidad MEC 2008-2012

Ref. MO2006-00744 – Quality Award (MDC/2008-00122; MICINN 2008-2012)

### 5<sup>th</sup> INTERNATIONAL POSTGRADUATE COURSE

## RESEARCH IN MARINE ENVIRONMENT AND RESOURCES (4,5 ECTS)

FEBRUARY 1-11, 2011, AQUARIUM, Donostia-San Sebastián

Organized by: MER Master (UPV/EHU)

MER Consortium, Dept Zoology and Cell Biology, Fac Science and Technology, Univ Basque Country, Bilbo

#### Coordinators:

Dr Adolfo Uriarte, AZTI-Tecnalia (Pasaia)

Dr Michael Collins, U Southampton (Southampton, UK)

Dr Carlos García-Soto, IEO (Santander)

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#### Additional information:

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\* and Master Course "Research in Marine Environment and Resources" (4,5 ECTS)

#### Supporting Institutions:

- University of the Basque Country (Vicerrect Graduate & Postgraduate Studies)
- Basque Government: Education, Universities & Research Dept (teaching staff mobility programme)
- Ministry of Science and Innovation (teaching staff mobility programme)



## Introduction

The International Postgraduate Course (4,5 ECTS) will take place for 11 days between **February 1-11, 2011** in the facilities of the Oceanographic Foundation of Gipuzkoa (FOG, Aquarium San Sebastian) and will consist of lectures, workshops, round table discussions and practicals.

Lectures (30 hours) and 15 additional teaching hours (practicals, workshops, round tables, ...) have been planned (45 hours in total). All lectures will be given in English. The course is directed at postgraduate or PhD students, aiming to become specialized in the field of marine environment and resources.

Participants will receive a certificate, with an indication of lectures and practicals attended.

Students who request it will receive the same academic treatment as the "official" students enrolled in the MER MSc and will be given marks, after examination. Thus, together with the attendance certificate, a supplementary certificate indicating the obtained marks (and ECTS) will be provided (i.e. a complete certificate).

## Registration

Students not registered in the MER Master may register in this course. The **registration fee is 225 €** and includes attendance at all teaching activities and course documentation.

For registration, participants should fill in the registration form and send it to MER Secretariat **before the 26th January 2011**, together with a bank cheque payable to "RiMER Course – MER CONSORTIUM". All participants will receive a receipt of payment and notification of acceptance in the course.

## Grants

A limited number of grants covering the registration fee are offered by the MER CONSORTIUM. Students wishing to be considered must indicate it in the registration form. Students receiving a grant will be refunded during the course.

## Accommodation

Participants wishing to obtain accommodation in Donostia-San Sebastian, at a student residence (approx. 55 €/day breakfast incl.), should contact (preferably by email):

RiMER COURSE ([eventos@aquariumss.com](mailto:eventos@aquariumss.com))

**AQUARIUM SS Carlos Blasco de Imaz Plz. 1**  
**20003 Donostia – San Sebastián**  
**Tlf. (34) 943 440099 Fax: 943 433554**



## PROGRAMME

### February 1st TUESDAY: OPENING SESSION – DEVELOPMENTS IN RiMER

- 15:00-15:30; "Welcome and General Introductory Remarks" Vicente Zaragueta (Aquarium SS-FOG), Adolfo Uriarte (AZTI-Tecnalia), Ionan Marigómez (Univ. Basque Country)
- 15:30-16:20; **Opening lecture 1:** "Methane Release from Hydrates beneath a Warming Ocean" Tim Minshull (U Southampton)
- 16:20-17:10; **Opening lecture 2:** "Beachrock Occurrence, Characteristics, Formation Mechanisms and Impacts" Adonis F Velegarakis (U Aegean, Greece)
- 17:10-17:40; *Coffee-break*
- 17:40-18:30; **Opening lecture 3:** "International Conventions and Protection of the Marine Environment from Ship-source Pollution" Regina Asariotis (United Nations Conference on Trade and Development, UNCTAD)
- 18:30-19:30; **Round table:** "Developments in Research in Marine Environment and Resources" R Asariotis, AF Velegarakis, M Collins, T Corregge, T Minshull (Chair)
- 19:30-21:00; *Welcome Reception at the Aquarium*

### February 2nd WEDNESDAY: COASTAL MANAGEMENT

- 09:30-10:20; "Tourism and Coral Reef Conservation", María C Uyarra (CIEE, Council Intl Educat Exchange), Bonaire)
- 10:30-11:20; "Climate change Impacts on Ports" Regina Asariotis (UNCTAD)
- 11:20-11:40; *Coffee-break*
- 11:40-12:30; "Management of the Urdaibai Reserve of the Biosphere" Ibone Amezaga (Univ. Basque Country)
- 12:40-13:30; "Engineering for the Assessment and Management of Coastal Resources" Iñigo Losada (Univ. Cantabria)
- 15:30-16:20; "Field observations of Waves Generated by Passing Ships" Adonis F Velegarakis (U Aegean, Greece)
- 16:30-17:20; "High frequency monitoring in estuaries: from processes to management" Aldo Sottolichio (Univ. Bordeaux 1)
- 17:20-17:40; *Coffee-break*
- 17:40-19:00; **Round table:** "Sustainable Coastal Management" MC Uyarra, I Amezaga, I Losada, R Asariotis, A Sottolichio, AF Velegarakis (Chair)

### February 3rd THURSDAY: MARINE ECOSYSTEM HEALTH

- 09:30-10:20; "Harmful Algae: a Challenge for Marine Resources Management", Emma Orive (Univ. Basque Country)
- 10:30-11:20; "Introduced Invasive Species in Coastal Environments", Xavier de Montaudouin (Univ. Bordeaux 1)
- 11:20-11:40; *Coffee-break*
- 11:40-12:30; "Integrative Ecological Status Assessment in Implementing the Water Framework Directive and the Marine Strategy Directive" Angel Borja (AZTI-Tecnalia)
- 12:40-13:30; "Persistent Organochlorines in Estuaries and Coastal Areas", Nestor Etxebarria (Univ. Basque Country)
- 15:30-16:20; "Trace Element Transfer at the Continent-Ocean Interface", Jörg Schäfer (Univ. Bordeaux 1)
- 16:30-17:20; "Biodiversity and Marine Ecosystem Health Assessment: Biotic Indices" Hugues Blanchet (Univ. Bordeaux 1)
- 17:20-17:40; *Coffee-break*
- 17:40-19:00; **Round table:** "Threats to Marine Ecosystem Health" X de Montaudouin, J Schäfer, N Etxebarria, Hugues Blanchet, E Orive (Chair)

### February 4th FRIDAY: MARINE ECOSYSTEM HEALTH

- 09:30-10:20; "The use of WOE for Environmental Quality Assessment in Sediments above Carbon Dioxide Storage Sub-seabed Geological Formations". A Del Valls (Univ. Cadiz)
- 10:30-11:20; "Bioavailability and Bioaccumulation of Metallic Pollutants: Cellular Mechanisms of Uptake and Detoxification" Manu Soto (Univ. Basque Country)
- 11:20-11:40; *Coffee-break*
- 11:40-12:30; "Biomarkers in Marine Ecosystem Health Assessment", Miren P Cajaraville (Univ. Basque Country)
- 12:40-13:30; "Proteomics Tools to Assess Pollution Effects in Marine Bivalves" Maria Bebianno (U Algarve, Portugal)
- 15:30-16:20; "Gene Expression Profiling in Marine Ecotoxicology", Ibon Cancio (Univ. Basque Country)
- 16:30-17:20; "Integrative assessment of sediment quality based on weight of evidence (WOE) approaches during 15 years in Spain, from genesis to revolution s". Angel Del Valls (U Cadiz)
- 17:20-17:40; *Coffee-break*
- 17:40-19:00; **Round table:** "Prospects in Marine Ecosystem Health" M Soto, M Bebianno, I Cancio, A Del Valls, MP Cajaraville (Chair)
- 20:30-24:00; *Course dinner*

### February 7<sup>th</sup> MONDAY: GLOBAL CLIMATE CRISIS (I)

09:30-10:20; "Ecological Responses to Past Climatic Changes", Maria Fernanda Sánchez-Goñi (Univ. Bordeaux 1)  
10:30-11:20; "Lessons from the Past: the Paleocene Eocene Thermal Maximum Crisis", Thierry Correge (Univ. Bordeaux 1)  
11:20-11:40: *Coffee-break*  
11:40-12:30; "The Impact of Vegetation Changes on Climate", Maria Fernanda Sánchez-Goñi (Univ. Bordeaux 1)  
12:40-13:30; "Tropical Climate Variability from the Chemical Analysis of Coral Skeletons", Thierry Correge (Univ. Bordeaux 1)  
15:30-16:20; "Molecular markers in Paleoceanography", JH Kim (NIOZ, The Netherlands)  
16:30-18:00; Round table: "Fossil Records of Climate Change", T Correge, JH Kim & MF Sánchez-Goñi (Chair)

### February 8<sup>th</sup> TUESDAY: GLOBAL CLIMATE CRISIS (II)

09:30-10:20; "Decadal Modulation of El Niño Southern Oscillation (ENSO), through Time", Thierry Correge (Univ. Bordeaux 1)  
10:30-11:20; "Mediterranean Sapropels: their Relation with African Monsoon", Jerome Bonnin (Univ. Bordeaux 1)  
11:20-11:40: *Coffee-break*  
11:40-12:30; "Satellite Oceanography and Climate Change", Carlos García Soto (IEO Santander)  
12:40-13:30; "From Global Climate Models to Regional Climate Assessment", J Sáenz (Univ. Basque Country)  
15:30-16:20; "Coral Bleaching due to Pollution and Climate Change", Mathieu Poulicek (Univ Liege)  
16:30-18:00; Round table: "Challenges of Global Climate Change to Marine Life and Bioresources" J Bonnin, J Sáenz, M Poulicek, C García Soto, T Correge (Chair)

### February 9<sup>th</sup> WEDNESDAY: MARINE RESOURCES AND FISHERIES

09:30-10:20; "Oceanography and Primary Production in the Bay of Biscay", Carlos García Soto (IEO Santander)  
10:30-11:20; "Marine Secondary Production in Biscay Bay", Unai Cotano (AZTI-Tecnalia)  
11:20-11:40: *Coffee-break*  
11:40-12:30; "Fisheries Management in the Bay of Biscay", Andrés Uriarte (AZTI-Tecnalia)  
12:40-13:30; "Fisheries and Climate Change" Hilario Murua (AZTI-Tecnalia)  
15:30-16:20; "Modelling Animal Production in Aquaculture Systems: The case of rafted mussels", Enrique Navarro (Univ. Basque Country)  
16:30-18:00; Round table: "Future of Fisheries in Biscay Bay", U. Cotano, H Murua, E Navarro, C García Soto (Chair)

### February 10<sup>th</sup> THURSDAY: CHALLENGES FOR BIODIVERSITY CONSERVATION

09:30-10:20; "Diversity of Diversities in Marine Sponges: a Hidden Challenge", Mikel Becerro (CSIC, Girona)  
10:30-11:20; "Coral Ecology and Conservation", Mathieu Poulicek (Univ Liege)  
11:20-11:40: *Coffee-break*  
11:40-12:30; "Parasites and Biodiversity in the Marine Environment" Ana Pérez Del Olmo (Autonomous Univ Barcelona)  
12:40-13:30; "Antarctica. A Whole Continent for Biodiversity Conservation" Iñaki Saiz Salinas (Univ. Basque Country)  
15:30-16:20; Round table: "Challenges for Biodiversity Conservation" M Becerro, I Saiz Salinas, A Pérez, A Rallo, M Poulicek (Chair)  
16:30-18:30; Practical Workshop: "An Approach to Modelling in System Biology." A Rallo, A Antón (Univ. Basque Country)

### February 11<sup>th</sup> FRIDAY: CLOSING SESSION

09:30-11:00; Workshop: "Presentation of ongoing MER PhD Thesis Research projects" MER JPB  
11:00-11:30: *Coffee-break*  
11:30-12:30; **Closing lecture:** "Basque Marine Science" Mike Collins (Univ. Southampton)  
12:30-13:30; Round table: "Towards a Strategy for Basque Marine Science" M Collins (Chair)  
13:30-14:00; "Closing ceremony" MER JPB & V Zarageta (Aquarium SS-FOG)  
15:30-18:00; **Open workshop:** "Louisiana Story (1948; Robert Flaherty)", cinema+discussion session: "Marine Environment and Resources Revisited" Eduardo Angulo (Univ. Basque Country), Ad Uriarte (AZTI-Tecnalia)

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