



## Editorial

## 6th Biannual ECOTOxicology MEeting (BECOME 2014) – *Environmental emergencies: Ecotoxicology as a management tool*



The 6th Biannual ECOTOxicology MEeting (BECOME 2014)-*Environmental emergencies: ecotoxicology as a management tool* was held at Fondazione Livorno Euro Mediterranea (LEM), Livorno, Italy, 11th–13th November 2014. The Meeting received financial support by the Italian Institute for Environmental Protection and Research (ISPRA), Centre for Coastal and Marine Sciences (CEMAS) (Department of Environmental Sciences, Informatics and Statistics, University Ca' Foscari Venice-UNIVE), Ecotox Lds, Microbiotest Inc., and Modern Water Inc. BECOME was organised by ISPRA, the National Research Centre (CNR), Marche Polytechnic University (UNIVPM), Emilia Romagna Environmental Protection Agency (EPA), Toscana EPA, Eurofins srl and Shoreline Soc. COOP. The scientific committee was composed of affiliates to ISPRA, CNR-Institute of Ecosystem Study (ISE), CNR-Institute of Marine Sciences (ISMAR), UNIVE, University of Piemonte Orientale (UNIPMN), UNIVPM, University of Siena, University of Pisa, University of Rome Tor Vergata (UNIROMAII), Italian Centre for Marine Biology (CIBM), Abruzzo EPA, Emilia Romagna EPA, Marche EPA, Toscana EPA, Ecotox Lds, Eurofins srl, and Shoreline Soc. COOP.

BECOME represents the biannual assembly of the Italian community researching, working, policy-making or simply interested in ecotoxicology and its related issues. Briefly, BECOME represents the result of the efforts driven by common voluntary interests supporting ecotoxicological tools as way to increase the general health and safety status of the environment and preventing future emergencies. Previous events were organized as listed: 6<sup>th</sup> March 2001, Rome, Italy; 17th–18th October 2006, Viareggio, Lucca, Italy; 25<sup>th</sup>–26<sup>th</sup> October 2008, Viareggio, Lucca, Italy; 20th–22th October 2010, Livorno, Italy; and 7th–9th November 2012, Livorno, Italy.

Ecotoxicology is experiencing a continuous scientific advancement including the development of new approaches to cope not only with traditional pollutants (e.g. metals), but also with emerging contaminants. Thus more sensitive and standardized techniques and biological models are to be developed at various levels of ecological complexity. Freshwater, saltwater and soil/sediment represent the testing media most frequently investigated in relation to the effects of microplastics, engineered nanomaterials, and pharmaceuticals. Policy-makers have increased their awareness about ecotoxicology that has started entering in environmental legislation like traditional physico-chemical parameters (e.g. REACH, H14). The 6th BECOME attracted researchers, policymakers and stakeholders interested in ecotoxicology as a whole with a special focus on ecotoxicology as an environmental management tool for both environmental emergencies and routine monitoring and control activities. BECOME collected and tackled topics

suggested by Research Agencies, Universities, Italian regional EPAs and enterprises brainstorming within three thematic Focus Groups (FGs): i) ecotoxicology and research; ii) ecotoxicology and environmental agencies; and iii) ecotoxicology and its implications for business. The main goals were to highlight the state-of-the-art of ecotoxicological issues at the forefront of new emerging contaminants, the existing gaps and main criticisms with a special focus on the need to develop criteria for ecotoxicological data integration also in relation to environmental emergencies.

The 6th BECOME had over 120 attendees with 3 parallel FGs, 4 sessions (i.e. i) Emerging contaminants or future emergencies?; ii) Ecotoxicology: H14 and REACH; iii) Innovative methods in ecotoxicology; iv) Ecotoxicology for routine controls and environmental emergencies), 10 keynote lectures, 35 platform presentations, 62 poster presentations and 6 poster spotlight presentations.

Twelve papers for this BECOME 2014 Special Issue PART I were selected and recommended after blind peer review process. More contributions will be available in the BECOME 2014 Special Issue Part II.

G. Libralato

Department of Environmental Sciences, Informatics and Statistics,  
University Ca' Foscari Venice, Campo della Celestia, Castello 2737/B, I-30122 Venice, Italy

R. Baudo

Institute of Ecosystem Study, National Research Council, Largo Vittorio Tonolli, 50-52, I- 28922 Verbania Pallanza, Italy

I. Buttino

Italian Institute for Environmental Protection and Research, ISPRA,  
Piazzale dei marmi 12, I-57123 Livorno, Italy

M. Faimali

Institute of Marine Sciences, National Research Council, Via de Marini  
6, I-16149 Genova, Italy

C. Mugnai

Italian Institute for Environmental Protection and Research, ISPRA,  
Via V. Brancati 48, I-00144 Rome, Italy

A. Volpi Ghirardini

Department of Environmental Sciences, Informatics and Statistics,  
University Ca' Foscari Venice, Campo della Celestia, Castello 2737/B, I-30122 Venice, Italy