

# PROGRAMME



eef/SITE

ECOLOGY AT THE INTERFACE  
21 | 25 SEPTEMBER 2015 ROME



# PROGRAMME INDEX

Monday, September 21<sup>th</sup> 2015

## GLOBAL CHANGE AND SUSTAINABILITY

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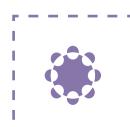
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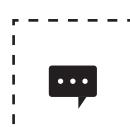
PLENARY



WELCOME COCKTAIL



ROUND TABLE



CS



BREAK



WORKSHOP



SYMPOSIUM

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## Thursday, September 24<sup>th</sup> 2015 BIODIVERSITY AND ECOSYSTEMS

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- pag. 29 > S22 - Soil quality and health
- pag. 30 > S23 - New emerging drivers of carbon and nutrient cycles under a drier and warmer climate
- pag. 30 > S24 - High nature value farmland: towards more effective conservation and monitoring of biodiversity across european landscapes
- pag. 31 > S25 - Ecologists' strategies at science-policy interfaces: how can social sciences help?
- pag. 31 > PL07 - Volterra 'S Legacy: variations and fluctuations in the numbers of coexisting species
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- pag. 32 > RT03 - Enhancing synergies among research infrastructures and joint programming initiatives on key environmental priorities
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The Coconet Project
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## Patronages, Sponsorships & Exhibitions





# PLENARY SESSIONS



## Matthias Gross

Department of Urban and Environmental Sociology,  
Helmholtz Centre for Environmental Research GmbH -  
UFZ, DE

*Sociology, Ecology and Environmental Sustainability*

Matthias Gross is Professor of Environmental Sociology at Helmholtz Centre for Environmental Research – UFZ, Leipzig, and, by joint appointment, the University of Jena, Germany.

His research includes the sociology of energy transitions, public perception of subterranean geology, ecological restoration and design, decision making under situations of ignorance, and theories of sustainability.

He is author of several books including *Ignorance and Surprise: Science, Society and Ecological Design* (2010, MIT Press) and *Renewable Energies* (with Rüdiger Mautz, 2014, Routledge).

Together with Linsey McGoey he is currently editing the *Routledge International Handbook of Ignorance Studies* (2015).



## Jef Huisman

Institute for Biodiversity and Ecosystem Dynamics,  
University of Amsterdam, NL

*Volterra's legacy: variations and fluctuations in the numbers of coexisting species*

Prof. Jef Huisman is fascinated by questions on species coexistence and the response of the species composition of natural communities to changing environmental conditions.

He uses freshwater and marine plankton communities as simple model systems to study species interactions such as competition and predation, combining mathematical models, laboratory experiments and field research. In particular, his work aims at an improved understanding of competition for limiting resources, the causes and consequences of species fluctuations, and how these may affect the biodiversity of natural communities.

In addition, Huisman also has a keen interest in the effects of climate change on aquatic ecosystems, with a particular emphasis on harmful algal blooms.

Jef Huisman leads the Department of Aquatic Microbiology at the University of Amsterdam, has served in numerous scientific advisory committees, and is Editor of the Aquatic Ecology Series of Springer.



## David Inouye

Department of Biology, University of Maryland (UMD), USA

*The effects of climate change on phenology of wildflowers and animals in the Colorado Rocky Mountains*

David Inouye is Professor Emeritus in the Department of Biology at the University of Maryland, and Principal Investigator at the Rocky Mountain Biological Laboratory, where he began work in 1971.

His research in Colorado focuses on long-term projects initiated in 1973 on the phenology and abundance of flowering, how they are responding to the changing environment, and how those changes are affecting consumers such as pollinators and herbivores.

He is President of the Ecological Society of America, a member of the Advisory Committee of the USA National Phenology Network, Chair of the Steering Committee for the North American Pollinator Protection Campaign, and a Lead Author for the report on pollinators by the Intergovernmental Panel on Biodiversity and Ecosystem Services.



## Christopher Kennedy

Department of Civil Engineering, University of Toronto,  
CA

### *Metabolism of Megacities*

In his research, Dr. Kennedy applies principles of Industrial Ecology to the design of urban infrastructure, including study of urban metabolism and its relations to global environmental challenges.

He is author of *The Evolution of Great World Cities: Urban Wealth and Economic Growth*. In 2011, Chris was seconded to the OECD in Paris, to support the Working Party on Climate Investment and Development.

He is President of the International Society for Industrial Ecology.



## Ingolf Kuehn

Department of Community Ecology, Helmholtz Centre for Environmental Research GmbH - UFZ, DE

### *Patterns of Plant Invasions in and from Central Europe*

Ingolf Kuehn is researcher at the Helmholtz Centre for Environmental Research – UFZ and professor for macroecology at the Martin-Luther University Halle-Wittenberg.

His research focuses on the impact of Global Change on biodiversity and ecosystems. Namely, he is interested in determinants of plant species ranges and functional trait composition of communities in relation to climate, land-use and alien species.

To this end, he improves existing and develops new approaches for spatial analyses in ecological context.

He published >100 papers in international peer reviewed journals and is listed as "Highly Cited Researcher".



## Fiorenza Micheli

Hopkins Marine Station, Stanford University, USA

### *Vulnerability and resilience of coastal ecosystems and fisheries to climate change*

Fiorenza Micheli's research focuses on the processes shaping coastal marine communities, and on incorporating this understanding in the management and conservation of marine ecosystems.

Her research applies marine community ecology to increase our understanding of human impacts on the marine environment and to design conservation and restoration strategies.

Examples include quantifying the joint effects of increased nutrient loading and fishing on marine ecosystems, and incorporating our understanding of diversity patterns, species interactions, and habitat-species linkages in the design and evaluation of marine reserves.



## Florian Musso

Department of Architecture, Technische Universitaet Muenchen, DE

### *The Ecology of Architecture*

Professor Musso carries out research in the fields of construction materials and subsystems in industrial construction.

After studying architecture at Stuttgart University and UVA in Charlottesville, USA, Professor Musso worked as an architect and assistant at ETH Zurich, ETH Lausanne and RWTH Aachen.

Before taking up his post at TUM in 2002, he was a lecturer at EIA Fribourg, Switzerland, and a guest professor at the University of Pennsylvania in Philadelphia, USA.

He was also a guest professor at the University of Arizona in Tucson, USA in 2005.

Together with Claudine Lorenz, Professor Musso has been running an architect's office in Sion, Switzerland since 1988 and in Munich since 2002.



## Antonello Provenzale

Institute of Geosciences and Earth Resources, National Research Council, IT

### *Global change and ecosystem response: Cross-scale interactions and the chain of uncertainties*

Prof. Provenzale is Director of the Institute of Geosciences and Earth Resources, at the National Research Council of Italy.

His research focuses on earth system science, impacts of global change on ecosystems and the hydrological cycle and on climate-biosphere interaction.

He is the coordinator of the MIUR National Project of Interest "NextData", the GEO Ecosystem Societal Benefit Action, the GEO Global Network on Observations and information in Mountain Environments (GEO-GNOME), the Program "Changes in the hydrological cycle" of the European Climate Research Alliance (ECRA).

Associate Editor of the journal "Environmental Science and Policy", author of more than 150 papers in the international scientific literature, he is the Editor of four volumes and of two journal special issues.



## Riccardo Valentini

Department Sciences of Forest Ecosystems and their Resources, Tuscia University, IT. Haeckel Prize Winner.

### *The coupled human - climate system: future challenges and vulnerabilities*

Riccardo Valentini is full Professor of Forest Ecology at the University of Tuscia, Italy.

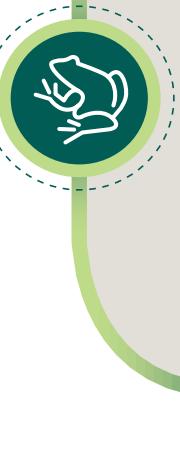
He is also appointed as coordinator of the Megagrant n.221 of the Russian Ministry of Science and Technology leading a group of about 40 scientists at the Russian State Agriculture University in Moscow.

Currently is also strategic Director of the CMCC (Euromediterranean Center for Climate Change).

Prof. Riccardo Valentini published in total 258 publications, of which 11 in highly cited journals (such as Nature (6), Science (4) and Nature Geoscience (1)) and 6 books.

Prof. Valentini's papers has been cited 14503 times since 1996. Prof. Valentini H factor is 55 according to Scopus.

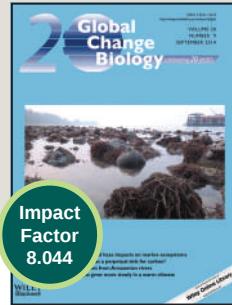
Recently he has been appointed from Thomson Reuters to be within the 1% of the most cited scientist in the world.



# Key Ecology Journals from Wiley



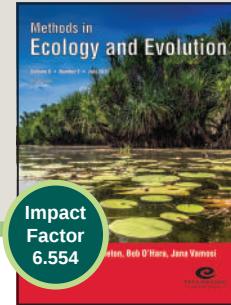
- No. 1 research journal in Ecology



- No. 1 in Biodiversity Conservation
- No. 5 journal in Ecology



- Owned by a not-for-profit trust
- Rapid review and publication



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- No. page charges



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- No. 5 journal in Biodiversity Conservation



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WILEY



Monday, September 21<sup>st</sup> 2015  
**GLOBAL CHANGE AND SUSTAINABILITY**



13:30 - 14:30

**OPENING CEREMONY** - *Hernst Haeckle Prize* - Hall 1

14:30 - 15:15

**PL01 - THE COUPLED HUMAN - CLIMATE SYSTEM:  
FUTURE CHALLENGES AND VULNERABILITIES**



*Riccardo Valentini* - Hall 1

15:15 - 18:45

**CS01 - ECOTOXICOLOGY**



*Chair: Aldo Viarengo* - Hall 2

**15:15 - CS01.1** - Toxic and genotoxic effects of different pesticides and their mixtures on the non-target model organism *Eisenia andrei*: laboratory and field studies

*Susanna Sforzini, Marta Boeri, Laura Oliveri, Aldo Viarengo*

**15:30 - CS01.2** - Toxicological effects in soil and water bioindicators exposed to olive mill waste before and after dephenolisation treatment

*Tommaso Campani, Ilaria Caliani, Chiara Pozzuoli, Enrico Pagano, Giada Beligni, Maria Cristina Fossi, Silvia Casini*

**15:45 - CS01.3** - Long-term toxicity of nanoplastics to marine plankton species *Dunaliella tertiolecta* and *Artemia salina*

*Elisa Bergami, Loredana Manfra, Federica Savorelli, Kenneth A. Dawson, Ilaria Corsi*

**16:00 - CS01.4** - DDT and Hg contamination of Toce River (Italy): studies for evaluating the on-site bioavailability (use of passive samplers and benthic invertebrates)

*Francesca Pisanello, Laura Marziali, Federica Rosignoli, Licia Guzzella, Davide Rabuffetti*

**16:15 - CS01.5** - Effects of contaminants on the autophagic process in mussels: new insights and possible applications

*Aldo Viarengo, Michael N Moore, Caterina Oliveri, Yann Aminot, James W. W. Readman, Mohamed Banni, Susanna Sforzini*

16:30 - 17:00

**COFFEE BREAK / POSTER SESSION**



**17:00 - CS01.6** - Elucidating the free fatty acid profile of caged mussels, *Mytilus galloprovincialis*, for the assessment of environmental pollution

*Ambrogina Albergamo, Francesca Rigano, Danilo Sciarrone, Giorgia Purcaro, Salvatore Fasulo, Angela Mauceri, Luigi Mondello*

**17:15 - CS01.7** - Evaluation of the impact of environmental contaminants of coastal areas subject to pre- and post-bioremediation by the application of genotoxicity biomarkers in mussels *Mytilus galloprovincialis*

*Ilaria Caliani, Stefania Ancora, Nicola Bianchi, Letizia Marsili, Simone Cappello, Giuseppe Mancini, Claudio Leonzio, Salvatore Fasulo*

**17:30 - CS01.8** - An interdisciplinary approach to characterize seagrasses: the study of *Halophila stipulacea* meadows in the Gulf of Aqaba by morphological, biochemical descriptor and epiphytic microbial communities

*Luciana Migliore, Astrid Y. Mejia, Alice Rotini, Maria Cristina Thaller, Gidon Winters*

**17:45 - CS01.9** - Macrofaunal community as indicator of sandy beaches environmental quality

*Giovanna Di Donato, Valerio Ketmaier, Andrea Setini, Elvira De Mattheis*

**18:00 - CS01.10** - Macroalgal seasonality effect on CARLIT methodology

*Gina de la Fuente, Valentina Asnaghi, Federico Gaino, Mariachiara Chiantore*

**18:15 - CS01.11** - A novel biotechnological tool to monitor trace elements and PAHs based on a devitalized moss clone: the MOSSclone output

*J. Aboal, P. Adamo, R. Bargagli, A.K. Beike, M. Bowkett, F. Capozzi, C. B. Carbal-leira, E. Concha-Grana, D. Crespo Pardo, E. L. Decker, A. Di Palma, J. A. Fernandez, V. Fernandez, S. Giordano, A. G. Gonzalez, S. Iglesias-Samitier, P. Lopez Mahia, S. Muniategui, P. Piñeiro-Iglesia, O. S. Pokrovsky, R. Reski, A. I. Rey-Asensio, V. Spagnuolo, Mauro Tretiach*

**18:30 - CS01.12** - Going beyond the WEEE Directive: examples of waste management options that create advantages for the environment

*Viviana Fonti, Laura Rocchetti, Alessia Amato, Francesca Beolchini*

15:15 - 18:45

## CS02 - GLOBAL CHANGE ECOLOGY



Chair: *Cristina Maguas* - Hall 1

**15:15 - CS02.1** - Climate-induced environmental stress in intertidal grazers: scaling-up biochemical responses to population - level processes

*Elena Maggi, Mario Cappiello, Antonella Del Corso, Francesca Lenzarini, Eleonora Peroni, Lisandro Benedetti-Cecchi*

**15:30 - CS02.2** - Mesocosm experiment of increasing temperature and effects on the plankton community of a Mediterranean lagoon

*Andreas Brutemark, Sanna Suikkanen, Silvia Pulina, Bachisio Mario Padedda, Lorena Grubisic, Cecilia Teodora Satta, Tiziana Caddeo, Pasqualina Farina, Nicola Sechi, Antonella Lugliè*

**15:45 - CS02.3** - Community and trophic structure of amphipod assemblages associated to *Posidonia oceanica* in a shallow volcanic CO<sub>2</sub> vent

*Valentina Costa, Salvatrice Vizzini, Antonio Mazzola*

**16:00 - CS02.4** - Weak and slow response of high elevation grasslands under global change

*Iker Pardo, Arantza Aldezabal, Ricardo García-González, Daniel Gómez, Daniel F. Doak, María B. García*

**16:15 - CS02.5** - Short- and Long-Term effects of an absent snow cover on boreal forest plants

*Gesche Blume-Werry*

16:30 - 17:00

## COFFEE BREAK / POSTER SESSION



**17:00 - CS02.6** - Seasonal trophic niche shift in Antarctic benthic consumers

*Edoardo Calizza, Maria Letizia Costantini, Loreto Rossi*

**17:15 - CS02.7** - Integrated assessment of Canadian forest vulnerability to climate change

*Isabelle Aubin, Hedi Kebli, Alison Munson, Françoise Cardou, John Pedlar, Daniel McKenney, Nathalie Isabel, Ted Hogg, Catherine Ste-Marie*

**17:30 - CS02.8** - Assessing population-level responses in plant communities affected by drought-induced die-off through species bioclimatic niches

*Francisco Lloret*

**17:45 - CS02.9** - Distinct effects of drought on plant shoot and root traits and ecological interaction

*Sandra Kleine, Caroline Müller*

**18:00 - CS02.10** - Life-history traits and response to global climate-changes: insights from the past

*Daniele Porretta, Valentina Mastrantonio, Sandra Urbanelli*

**18:15 - CS02.11** - Decadal change in rocky reefs: the importance of observational ecology

*Giulia Gatti, Carlo Nike Bianchi, Monica Montefalcone, Sara Venturini, Carla Morri*

**18:30 - CS02.12** - Response of soil microorganisms to summer flooding as affected by plant diversity

*Odette Gonzalez, Stefan Scheu*

## CS03 - AQUATIC ECOLOGY

Chairs: *Marco Bartoli, Antonio Pusceddu, Salvatrice Vizzini* - Hall 7

**15:15 - CS03.1** - Effects of different climate-related episodic events on the benthic trophic status and biodiversity of European continental margins

*Antonio Pusceddu, Roberto Danovaro*

**15:30 - CS03.2** - Insights on the tolerance and resilience of Mediterranean seagrasses to short-term heat waves

*Lazaro Marin-Guirao, Emanuela Dattolo, Juan Manuel Ruiz, Gabriele Procaccini*

**15:45 - CS03.3** - Towards a framework for assessment and management of regional vulnerability of marine coastal priority habitats

*Giulio Farella, Francesco De Leo, Luigi Maiorano, Simonetta Fraschetti*

**16:00 - CS03.4** - When the invasion of freshwater failed: the case of aquatic insects

*Stefano Fenoglio, Nuria Bonada, Simone Guareschi, Andrés Millán, Manuel Jesús López Rodríguez, José Manuel Tierno de Figueroa*

**16:15 - CS03.5** - Biological trait profiles of the 68 most widespread non-indigenous species in the European seas

*Alice Cardeccia, Agnese Marchini, Bella S. Galil, Stephan Gollasch, Dan Minchin, Aleksas Narščius, Anna Occhipinti-Ambrogi, Sergej Olenin, Henn*



16:30 - 17:00

COFFEE BREAK / POSTER SESSION 

**17:00 - CS03.6** - Evaluating the potential of ecological niche modelling as a component in marine non-indigenous species risk assessments  
*Sonja Leidenberger*

**17:15 - CS03.7** - *Aurelia aurita* ephyrae effect on a coastal microbial community  
*Luca Zoccarato*

**17:30 - CS03.8** - An integrated observatory for the study of marine coastal ecosystems  
*Viviana Piermattei, Alice Madonia, Simone Bonamano, Riccardo Martellucci, Alberto Pierattini, Marta Albani, Cristiano Melchiorri, Giuseppe Zuppala, Marco Marcelli*

**17:45 - CS03.9** - A new framework for reliable estimates of gamma-diversity  
*Stanislao Bevilacqua, Adriana Plicanti, Karl Inne Ugland, Antonio Terlizzi*

**18:00 - CS03.10** - PhytoVFP: a new bio-optical model to estimate phytoplankton primary production  
*Chiara Stefani, Simone Bonamano, Cristiano Melchiorri, Viviana Piermattei, Fabiola Fani, Luigi Lazzara, Franco Decembrini, Marco Marcelli*

**18:15 - CS03.11** - Large spatial scale metagenetic analysis of zooplankton of the Adriatic Sea  
*Sergio Stefanini, Valentina Tirelli, Diego Borme, Alessandra de Olazabal, Tea Juretić, Paola Del Negro, Alberto Pallavicini*

**18:30 - CS03.12** - The effect a seal exclusion device has on catches in a pontoon trap for salmonids  
*Linda Calamnus, Mikael Lundin, Arne Fjälling, Sara Königsson, Nils Ryrholm*

15:15 - 19:00

S01 - PLANT TRAITS -  
A TOOL TOWARDS A MORE PREDICTIVE ECOLOGY? 

Convener: *Jens Kattge* - Hall 3

**15:15 - S01.1** - From plant traits to ecosystem processes: bridging ecophysiology and macroecology  
*Iain Colin Prentice, Han Wang, Changhui Peng, William K. Cornwell, Tyler W. Davis, Ning Dong, Bradley J. Evans, Trevor F. Keenan, Yan-Shih Lin, Benjamin D. Stocker, Henrique F. Togashi, Ian J. Wright.*

**15:45 - S01.2** - Using functional traits to model plant species' sensitivity to land-use change  
*Andy Purvis, Tim Newbold, Rebecca A. Senior, Adriana De Palma, Sandra Díaz, Jens Kattge, the PREDICTS team*

**16:00 - S01.3** - A global view and measurement of plant ecological strategies  
*Simon Pierce, Daniel Negreiros, Bruno E.L. Cerabolini, The TRY consortium*

**16:15 - S01.4** - Predictive trait-based community ecology and biogeography: promises and limits  
*Cyrille Violette*

16:30 - 17:00 

COFFEE BREAK / POSTER SESSION

**17:00 - S01.5** - Re-visiting historical semi-natural grasslands plots to assess shifts in plant functional traits.  
*Sabina Burrascano, Eleonora Giarrizzo, Laura Zavattero, Laura Facioni, Francesco De Bello, Carlo Blasi*

**17:15 - S01.6** - Nitrogen deposition in Europe and trade-offs for soil decomposition and pollination services.  
*Christian Mulder*

**17:30 - S01.7** - Considerations on a data-driven approach to identify plant's imprint on ecosystem functioning.  
*Talie Musavi, Jens Kattge, Miguel D. Mahecha, Markus Reichstein, Martine Janet van de Weg, Peter M. van Bodegom, Michael Bahn, Mirco Migliavacca, Christian Wirth, Peter B. Reich*

**17:45 - S01.8** - Using ecosystem level CO<sub>2</sub> fluxes, hyperspectral remote sensing and plant traits to evaluate the effects of nutrient availability on the functioning of a Mediterranean grassland

*Mirco Migliavacca, Oscar Pérez-Priego, Micol Rossini, Gerardo Moreno, Jinhong Guan, Arnaud Carrara, Francesco Fava, Markus Reichstein*

**18:00 - S01.9** - Incorporating imputation and data uncertainty into a tree functional trait database

*Rafael Poyatos, Oliver Sus, Albert Vilà-Cabrera, Jordi Vayreda, Sandra Saura-Mas, Maurizio Mencuccini, Jordi Martínez-Vilalta.*

**18:15 - S01.10** - Gap-filling for multivariate plant trait analyses – trait prediction using Bayesian Hierarchical Probabilistic Matrix Factorization

*Julia Joswig, Jens Kattge, Farideh Fazayeli, Hanhuai Shan, Miguel Mahecha, Markus Reichstein, Arindam Banerjee, Peter Reich, Björn Reu, Franziska Schrödt, Christian Wirth*

**18:30 - S01.11** - Diversifying plant traits in a DGVM – the LPJmL-FIT approach

*Kirsten Thonicke, Boris Sakschewski, Alice Boit, Werner von Bloh*

**18:45 - S01.12** - Trait-based ecosystem modeling: projecting traits, communities and functional diversity

*Simon Scheiter, Liam Langan, Mirjam Pfeiffer, Steven I. Higgins*

15:15 - 19:00

## S02 - THE (MACRO)ECOLOGY OF ANIMAL SPECIES DECLINE



Convenors: *Carlo Rondinini, Moreno Di Marco, Luca Santini, Michela Pacifici* - Hall 4

**15:15 - S02.1** - Defaunation in the Anthropocene: response of animal populations to human mediated drivers

*Ben Collen*

**15:45 - S02.2** - Contrasting changes in the abundance and diversity of North-American bird assemblages

*Aafke M. Schipper, Jonathan Belmaker, Carlo Rondinini, Henrique M. Pereira*

**16:00 - S02.3** - Beyond correlation: searching for the mechanisms by which species' traits influence extinction risk

*Manuela González-Suárez, Alejandro Gonzalez-Voyer, Carles Vilà, Eloy Revilla*

**16:15 - S02.4** - Importance of intrinsic and extrinsic characteristics to identify hotspots of mammal species at risk from climate change

*Michela Pacifici, Piero Visconti, Carlo Rondinini*

16:30 - 17:00

## COFFEE BREAK / POSTER SESSION



**17:00 - S02.5** - Sea level rise and the decline of water-birds in Europe

*Luigi Maiorano, Achilleas Psomas, Niklaus E. Zimmermann, Moreno Di Marco, Alessandro Montemaggiori*

**17:15 - S02.6** - "The bigger they are, the harder they fall"? Organism size and species' sensitivity to land-use impacts

*Tim Newbold, Andy Purvis, Lawrence Hudson, the PREDICTS team*

**17:30 - S02.7** - Human-driven body size reduction in terrestrial mammal communities

*Luca Santini, Moreno Di Marco*

**17:45 - S02.8** - Setting equitable conservation targets: biological predictors of species persistence

*Jelle P. Hilbers, L. Santini, P. Visconti, A.M. Schipper, C. Rondinini, M.A.J. Huijbregts*

**18:00 - S02.9** - Mammalian phylogenetic diversity-area relationships at a continental scale

*Florent Mazel, Julien Renaud, François Guilhaumon, David Mouillot, Dominique Gravel, Wilfried Thuiller*

**18:15 - S02.10** - Macroecological patterns of distribution and endemism of European montane mammals

*Giovanni Amori, L. Boitani, L. Luiselli, G. Milana, L. Maiorano*

**18:30 - S02.11** - Projected effect of global change on European large mammals

*Carlo Rondinini, Piero Visconti*



15:15 - 19:00

S03 - BIO-MONITORING: LESSONS FROM THE PAST,  
CHALLENGES FOR THE FUTURE



Convener: **Rossano Bolpagni** - Hall 5

15:15 - S03.1 - The living stream: a functional approach

*Richard W. Merritt*

15:45 - S03.2 - Freshwater diatoms as indicators of environmental change:  
from the community to the cell level

*Salomé F.P. Almeida*

16:15 - S03.3 - Assessing the health of freshwaters and their potential to  
provide ecosystem services

*Laurence Carvalho*

16:30 - 17:00

COFFEE BREAK / POSTER SESSION



17:00 - S03.4 - How do within site variability of detection probability and  
abundance of macroinvertebrates affect the result of multimetric index?

*Alex Laini, Simone Guareschi, Rossano Bolpagni*

17:15 - S03.5 - Natural dynamics affect submerged aquatic vegetation depth  
distribution, diversity and abundance in deep lakes: implications for the  
biomonitoring

*Mattia M. Azzella, Alex Laini, Rossano Bolpagni*

17:30 - S03.6 - Mapping macrophyte functional groups using multi-tempo-  
ral satellite data: approach overview and capabilities

*Paolo Villa, Mariano Bresciani, Monica Pinardia, Rossano Bolpagni, Claudia  
Giardino*

17:45 - S03.7 - Steps towards protocols for including lichens in routine  
monitoring of freshwater habitats as part of the implementation of the EU  
Water Framework Directive

*Holger Thüs, Juri Nascimbene*

18:00 - S03.8 - A new European standard for lichen biomonitoring: research  
supports application

*Paolo Giordani*

18:15 - S03.9 - Plant strategies as biological indicators of ecosystem services

*Bruno E.L. Cerabolini, Simon Pierce*

15:15 - 19:00

18:30 - S03.10 - Soil fauna in health and soil quality monitoring  
*Cristina Menta*

S04 - THE SOUNDSCAPE ECOLOGY:  
A NEW FRONTIER OF THE ECOLOGICAL INVESTIGATION



Convener: **Almo Farina** - Hall 6

15:15 - S04.1 - The role of natural and anthropogenic sounds in the  
ecological dynamics of animal communities

*Almo Farina*

15:45 - S04.2 - Socio-ecological soundscapes – portraits of reality  
*Philip James*

16:15 - S04.3 - Interspecific acoustic  
*Diego Llusia, Thierry Aubin, Jérôme Sueur*

16:30 - 17:00

COFFEE BREAK / POSTER SESSION



17:15 - S04.4 - Soundscape of different marine coastal ecosystem  
*Buscaino Giuseppa, Filiciotto F., Maccarrone V., Ceraulo M., Grammauta M.,  
Corrias V., Di Stefano V., Mazzola S., Galli P., Montano S., Seveso D., Di Fiore  
V., Punzo M., Scotto P., Pelosi N., Cavuoto G., Tarallo D., Iavarone M., Scotto di  
Vettimo P.*

17:45 - S04.5 - The soundscape of *Posidonia oceanica* ecosystem: temporal  
and spatial patterns

*Maria Ceraulo, Almo Farina, Elena Papale, Valentina Corrias, Giovanni De Vin-  
cenzi, Francesco Caruso, Vincenzo Di Stefano, Vincenzo Maccarrone, Francesco  
Filiciotto, Salvatore Mazzola, Giuseppa Buscaino*

18:15 - S04.6 - Anthropogenic noise in the central Mediterranean sea: mod-  
el, direct measurements and management indications

*Grammauta R., Viola S., Caruso F., Chierici F., Embriaco D., Favali P., Filiciotto  
F., Giovanetti G., Larosa G., Maccarrone V., Marinaro G., Mazzola S., Pavan G.,  
Pulvirenti S., Riccobene G., Sciacca V., Simeone F., Buscaino Giuseppa*



Tuesday, September 22<sup>nd</sup> 2015  
**URBAN ECOSYSTEMS AND RESILIENCE**



08:30 - 09:15

**PL02 - SOCIOLOGY, ECOLOGY AND ENVIRONMENTAL SUSTAINABILITY** 

*Matthias Gross* - Hall 1

09:15 - 10:00

**PL03 - THE ECOLOGY OF ARCHITECTURE** 

*Florian Musso* - Hall 1

10:00 - 10:30

**COFFEE BREAK / POSTER SESSION** 

10:30 - 13:15

**S05 - HIDDEN AND DARK BIODIVERSITY - FROM MOLECULES TO MACROECOLOGY** 

*Convener: Martin Zobel* - Hall 1

**10:30 - S05.1** - Observed and dark diversity of plants at the European scale.

*Meelis Pärtel*

**11:00 - S05.2** - Tracking biodiversity via DNA metabarcoding

*Pierre Taberlet*

**11:30 - S05.3** - Recent speciation and rapid evolutionary adaptation in polar bears

*Eline Lorenzen*

**11:45 - S05.4** - Revealing plant belowground diversity - do known patterns remain?

*Inga Hiiesalu*

**12:00 - S05.5** - Dark horses and black panthers - ecological and conservation perspectives on dark megafaunal diversity

*Jens-Christian Svenning*

**12:15 - S05.6** - Global assessment of arbuscular mycorrhizal fungus diversity reveals very low endemism

*John Davison, Mari Moora, Maarja Öpik, Martti Vasar, Martin Zobel*

**12:30 - S05.7** - The magnitude of dark diversity across taxa and scales

*Jonathan Belmaker*

10:30 - 13:00

**12:45** - Discussion: are there hidden patterns of diversity and what do they tell us?

*Martin Zobel*

**S06 - LIGHT POLLUTION SYMPOSIUM** 

*Convener: Fabio Falchi* - Hall 2

**10:30 - S06.1** - The new world Atlas of artificial sky brightness

*Fabio Falchi*

**10:45 - S06.2** - Day-time and night-time plant-pollinator interaction networks

*Eva Knop, Ryser R., Gerpe C.*

**11:00 - S06.3** - The effects of increasing intensity of light at night on gene expression in the brain, liver, spleen and testes of birds: implications for the health of wild

*Davide M. Dominoni, M de Jong, JE Clark, P O'Shaughnessy, K Van Oers, V. Zaninotto, ME Visser, B Helm*

**11:15 - S06.4** - Dark-night ecotones: the economics of global night sky conservation

*Terrel A. Gallaway*

**11:30 - S06.5** - Emerging population effects of long-term artificial illumination of a forest edge ecosystem

*Marcel E. Visser, Roy H.A. van Grunsven, Frank Berendse, Elmar M. Veenendaal, Kamiel Spoelstra*

**12:00 - S06.6** - Microbial diversity and community respiration in freshwater sediments influenced by artificial light at night

*Franz Höller, Christian Wurzbacher, Carsten Weißenborn, Michael T. Monaghan, Stephanie I. J. Holzhauer, Katrin Premke*

10:30 - 14:00

## S07 - SCALE NON-LINEARITY OF DRIVERS OF ENVIRONMENTAL CHANGE, AND SCALE MISMATCHES IN NATURE CONSERVATION GOVERNANCE



Convener: **Joseph Tzanopoulos** - Hall 3

10:30 - Introduction

**Klaus Henle, Joseph Tzanopoulos**

11:00 - S07.1 - Temporal biodiversity changes across scales

**Stefano Larsen, Jonathan Chase, Steve Ormerod**

11:30 - S07.2 - Spatial structuration of anthropogenic drivers of environmental change in coastal areas

**Pascal Marty, Jonathan Daeden**

12:00 - S07.3 - Intergovernmental fiscal transfers to support local conservation action in Europe

**Irene Ring, Christoph Schröter-Schlaack, Thomas Koellner, Rui Santos, Paula Antunes, Pedro Clemente, Raphaël Mathevet, Maud Borie, Małgorzata Grodzińska-Jurczak**

12:30 - S07.4 - Scale mismatches of biodiversity governance – How to successfully combine voluntariness and ecological targeting of conservation?

**Riikka Paloniemi, Teppo Hujala, Salla Rantala, Anna Salomaa, Annika Harlio, Sari Pynnonen, Eeva Primmer, Outi Ratamäki, Mikko Kurtila, Anni Arponen**

13:00 - S07.5 - Biodiversity offsetting in England: governance rescaling, socio-spatial injustices and the neoliberalisation of nature

**Elia Apostolopoulou**

13:15 - S07.6 - Scale, habitat banking, green infrastructure and nightingale ecology: the story – so far – of the Lodge Hill development site in the UK

**Dimitrios Bompoudakis, Joseph Tzanopoulos**

10:30 - 14:00

## S08 - FRONTIERS IN ECOLOGICAL ECONOMICS: TOWARDS THE CIRCULAR AND LOW CARBON ECONOMY



Convener: **Massimiliano Mazzanti** - Hall 6

10:30 - Introduction

**Massimiliano Mazzanti**

10:45 - S08.1 - Patterns of sustainable consumption and production in European countries

**Giovanni Marin**

11:15 - S08.2 - Nature from Sumak Kawsay to Buen Vivir: from cosmovision to neoextractivism.

**Andrea Cori, Salvatore Monni, Massimo Pallottino**

11:45 - S08.3 - The economics of carbon costing.

**Silvana Dalmazzone, Alice Damiano, Vito Frontuto**

12:00 - S08.4 - Vulnerability, hazard, risk, loss and resilience: a socio-ecological framework for natural disasters.

**Marco Modica**

12:30 - S08.5 - Eco innovations in a systemic and evolutionary view.

**Claudia Ghisetti**

13:00 - S08.6 - Environmental inequality and mortality rate: an empirical investigation on Italian municipalities.

**Nicolò Barbieri**

13:30 - S08.7 - Projecting the future potential of shellfish sector in the Mediterranean sea and possible economic rebounds.

**Valeria Montalto, Silvana Dalmazzone, Vito Frontuto, Lidia Primiani, Brian Helmuth, Gianluca Sarà**

10:30 - 14:00

## S09 - ENERGY AND MATERIAL FLOWS IN MEGACITIES



Organizer: **Angelo Facchini** - Hall 5

10:30 - S09.1 - The “electric city” as a solution for urban sustainability

**Angelo Facchini**

11:00 - S09.2 - Transformation of megacities through low carbon electrification

**Christopher Kennedy**

11:30 - S09.3 - Urban metabolism of megacities: a comparative study

**Iain D. Stewart**

12:00 - S09.4 - Downscaling London’s domestic energy consumption

**James Keirstead**

12:30 - S09.5 - The role of utilities in the urbanization of 21<sup>st</sup> Century

**Renata Mele**

**13:00 - S09.6** - Presentation of the volume "Cities in the 21<sup>st</sup> Century. Academic visions on urban development"

*Renata Mele*

**10:30 - 14:00**

## S10 - CELEBRATORY SYMPOSIUM FOR ESA CENTURY ANNIVERSARY



*Convener: Jill Baron* - Hall 7

**10:30** - Introduction - Ecological milestones from the ESA Centennial meeting

*Jill Baron, Nancy Huntly, David W. Inouye*

**10:45 - S10.1** - Putting people into ecological models to understand past and future human ecology

*Nancy Huntly*

**11:15 - S10.2** - Worldwide nitrogen management challenges for a crowded planet

*Jill Baron*

**11:45 - S10.3** - Plants and insects in a changing world

*David W. Inouye*

**12:15 - S10.4** - The Emergence and Relevance of Urban Ecology in the United States

*Richard W. Pouyat*

**12:45 - S10.5** - The rise of ecosystem ecology and its applications to environmental challenges

*Robert G. Woodmansee*

**13:15 - S10.6** - FUTURE EARTH: Integrative socio-ecological framing of the research strategy to address global environmental challenges

*Dennis Ojima*

**10:30 - 19:00**

## S11 - PHYTOPLANKTON TRAITS, FUNCTIONAL GROUPS AND COMMUNITY ORGANIZATION IN THE PERSPECTIVE OF GLOBAL ENVIRONMENTAL CHANGE



*Conveners: Elena Litchman, Leonilde Roselli* - Hall 4

**10:30 S11.1** – Trait-based approaches to phytoplankton ecology and evolution

*Elena Litchman*

**11:00 - S11.2** - Phytoplankton size: Do marine phytoplankton follow Bergmann's rule?

*Ulrich Sommer, Kalista Higini Peter, Maria Moustaka-Gouni*

**11:15 - S11.3** - Do phytoplankton traits do what we hypothesize in trait based ecology?

*Ursula Gaedke, Toni Klauschies, A. Horn, Guntram Weithoff*

**11:30 - S11.4** - Mixotrophy in bacterivorous flagellates - shedding light on a neglected trait

*Robert Ptacnik, Robert Fischer, Claudia Pezzei, Thomas Fleischhacker*

**11:45 - S11.5** - Phytoplankton diversity, production, and community composition in relation to nutrient availability and imbalance

*Sirpa Lehtinen, Timo Tamminen, Robert Ptacnik, Tom Andersen*

**12:00 - S11.6** - Phytoplankton responses to global warming and increasing human exploitation of inland and coastal waters

*Kirsten Orlík*

**12:15 - S11.7** - Signal of biotic interactions in the phytoplankton community composition

*Riina Klaas, Sirpa Lehtinen, Timo Tamminen, Veera Norros, Kalle Olli*

**12:30 - S11.8** - Patterns of phytoplankton community in the lagoon of Venice: a trait-based analysis

*Fabrizio Bernardi Aubry, Alessandra Pugnetti, Leonilde Roselli, Francesco Acri, Stefania Finotto and Alberto Bassetti*

**12:45 - S11.9** - Assessment of surface waters quality based on monitoring of phytoplankton community structure in six Apulian (Italy) Artificial Lakes  
*Maria Rosaria Vadrucci, Tiziana Di Festa, Michela Ingaramo, Anna Maria Pastorelli, Rosaria Petruzzelli, Enrico Barbone, Nicola Ungaro, Antonella Romano, Roberto Bucci*

**13:00 - S11.10** – Phytoplankton assemblage self-organization, emerging species traits and competition under a pulsed nutrient regime

*Sofie Spatharis, Lydia Papanikolopoulou, Evangelia Smeti, Daniel L. Roelke*

**13:15 - S11.11** - Use of morphofunctional classifications in phytoplanktonic communities of eutrophic lakes

*Letícia Barbosa Quesado, Waldenilia Daniele Pereira de Farias, Camila Rodrigues Cabral, Fabíola da Costa Catombé Dantas, André Megali Amado, Vanessa Becker, Adriano Caliman, Luciana Silva Carneiro*

**13:30 - S11.12** - Diurnal light oscillation as a contributing process for niche creation and biodiversity patterns

*Ioannis Tsakalakis, Alexey Ryabov, Bernd Blasius, Markus Pahlow, Andreas Oschlies*

**13:45 - S11.13** - Phytoplankton networks embedded within regional species pools as a key factor shaping beta diversity

*Androniki Tamvakis, Sofie Spatharis, George Tsirtsis*

**14:00 - 15:00**

**LUNCH / POSTER SESSION** 

**15:00 - S11.14** - Automated determination and quantification of filamentous toxic cyanobacterial genera by spline curves, pattern recognition and machine learning

*Emanuele Gandola, Alessio Traficante, Simone Franceschini, Michele Scardi, Roberta Congestri*

**15:15 - S11.15** - Species and shape diversity of phytoplankton along spatial and temporal gradients in the Florida Keys

*Elena Stanca, Michael L. Parsons*

**15:30 - S11.16** - Evolutionary pressure on diatom life forms

*Diana Sarno, Amato A., Dubroca L., D'Alelio D., Franzè G., Margiotta F., Mazzocchi M.G., Ribera d'Alcalà M., Zingone A., Iudicone D.*

**15:15 - S11.17** - Imperfect prey selectivity of predators promotes biodiversity and irregularity in food webs

*Alexey B. Ryabov, Andrew Morozov, Bernd Blasius*

**16:00 - S11.18** - Functional diversity differs among life domains and major phylogenetic groups in the freshwater phytoplankton

*Carla Kruk, Piccini C., Cabrera C., Carballo C., Sarthou F., Nogueira L., Colina, M., Segura A. M.*

**16:15 - S11.19** - Insights from a model of phytoplankton community properties

*Esteban Acevedo-Trejos, Gunnar Brandt, Jorn Bruggeman, Agostino Merico*

**16:30 - 17:00**

**COFFEE BREAK / POSTER SESSION** 

**17:00 - S11.20** - A hierarchical individual-based approach to phytoplankton community organization

*Leonilde Roselli, Litchman E., Stanca E., Cozzoli F., Bassett A.*

**17:15 - S11.21** - Modelling dark respiration in marine phytoplankton

*Mustafa Mantikci, Jørgen L. S. Hansen, Stig Markager*

**CS04 - BEHAVIOURAL ECOLOGY** 

*Chair: Thomas Alexander Verschut* - Hall 2

**13:15 - CS04.01** - Searching for food in complex environments: elucidating associational effects between resources

*Thomas Alexander Verschut, Paul Becher, Peter Anderson, Peter Hambäck*

**13:30 - CS04.02** - Assessing landscapes of fear: effects of risk perception versus actual predator abundance on group structure and behaviour in a guanaco population in southern Patagonia

*Esperanza Cristina Irazo, Heiko Wittmer, Juan Traba, Cristina Mata, Pablo Acebes, Cristian Estades, Benito Alejandro Gonzalez, Juan Esteban Malo*

**13:45 - CS04.03** - Is the behaviour associated with the movement of *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae) influenced by phosphine resistance genes?

*Rokhsareh Malekpour*

**13:15 - 14:00**

**CS05 - BIODIVERSITY AND ECOSYSTEMS** 

*Chair: Giulia Ceccherelli, Simonetta Fraschetti, Alessandra Pugnetti* - Hall 1

**13:15 - CS05.01** - Do rare species matter for ecosystem multifunctionality?

*Santiago Soliveres, Markus Fischer, Eric Allan*

**13:30 - CS05.02** - Herbivores, saprovores and natural enemies benefit differently from intra-field plant community of winter wheat

*Berta Caballero Lopez, Jose Manuel Blanco-Moreno, Juli Pujade-Villar, Daniel Ventura, Josep Anton Sánchez-Espigares, Francesc Xavier Sans*

**13:45 - CS05.03** - Increase in predation rates along an experimental plant diversity gradient

*Lionel Hertzog*

14:00 - 15:00

## LUNCH / POSTER SESSION

**17:00 - CS05.04** - Species partition fine-scale gradients in light availability on their leaf functional traits in southern Chile  
*Alex Fajardo, Alfredo Saldaña, Andrew Siefert*

**17:15 - CS05.05** - Do seedling traits reflect adult traits in vascular plants from the Himalayas?  
*Ines Abela Hofbauerova, Jiri Dolezal*

**17:30 - CS05.06** - Environmental and trait variability constrain community structure and the biodiversity-productivity relationship  
*Alexey B. Ryabov*

**17:45 - CS05.07** - Effects of land-use abandonment on taxonomic and functional biodiversity in semi-natural boreal ecosystems  
*Sølvi Wehn, Line Johansen, Simon Taugourdeau*

**18:00 - CS05.08** - Exploring the functional significance of forest diversity: an update from the long-term biotree experiment  
*Charles Andrew Nock, Florian Härtig, Michael Scherer-Lorenzen*

**18:15 - CS05.09** - Functional traits modulate the phenological advance of drylands species under warming  
*Enrique Valencia, Marcos Méndez, Noelia Saavedra, Fernando Tomás Maestre*

**18:30 - CS05.10** - Succession-driven changes in the functional diversity of xerophytic shrub communities  
*Sergio Chozas*

**18:45 - CS05.11** - Synthesis Centers: an essential tool in our complex, data-rich future  
*Marten Winter, Jill Baron, Alison Specht, Pamela Bishop, James Boyd, Andrew Campbell, Frank Davis, David Hawthorne, Colleen Jonsson, Jonathan Kramer, Thomas Meagher, Margaret Palmer, Claire Salomon, Diego Steinaker, Christian Wirth, Todd Vision*

14:00 - 15:00

## WS1 - USING INTELLIGENT GIS TOOLS SUPPORTING MSFD MONITORING: ACHIEVEMENTS OF IRIS-SES PROJECT

Conveners: *Karageorgis A.P., Drakopoulou P., Kyriakidou Ch., Giannoudi L., Streftaris N., Pagou K. (IRIS-SES Project)* - Hall 7

14:00 - 15:00

## WS2 - TRANS-DISCIPLINARY ECOSYSTEM-HEALTH RESEARCH AND INNOVATION: INTERFACING DISCIPLINES AND FIELDS OF ACTIVITY

Convener: *Timo Assmuth* - Hall 5

## WS3 - SYNTHESIS IN ECOLOGY AND THE ROLE OF SYNTHESIS CENTERS

Conveners: *Jill S. Baron, Marten Winter, Alison Specht* - Hall 6

## RT1 - URBAN RESILIENCE, SUSTAINABILITY AND HEALTH.

Convener: *Roma Capitale* - Hall 1

## COFFEE BREAK / POSTER SESSION

## CS03 - AQUATIC ECOLOGY

Chairs: *Marco Bartoli, Antonio Pusceddu and Salvatrice Vizzini* - Hall 6

**17:00 - CS03.13** - Thermal variance sets life history traits of the Mediterranean toothcarp *Aphanius fasciatus*  
*Alessandro Rinaldi, Gianluca Sarà*

**17:15 - CS03.14** - Use of artificial habitats within coastal lagoons: structure and ecological role of resident fish populations  
*Cristina Andolina, Piero Franzoi, Salvatrice Vizzini*

**17:30 - CS03.15** - Estuarine sponge ground: discovery of a new habitat in the Venice lagoon  
*Marco Sigovini, Frine Cardone, Irene Guarneri, Giacomo Montereale Gavazzi, Davide Tagliapietra, Fantina Madricardo*

**17:45 - CS03.16** - Macrofaunal invertebrate energy content within a freshwater temporary pool from northeast Italy  
*Marco Bertoli, Giacomo Brichese, Fabio Vignes, Alberto Basset, Elisabetta Pizzul*

**18:00 - CS03.17** - Direct observation of increasing recovery length before collapse of a marine benthic ecosystem  
*Luca Rindi, Lei Dai, Martina Dal Bello, Jeff Gore, Lisandro Benedetti-Cecchi*

**18:15 - CS03.18** - Interactions among roots, macrofauna and bacteria in freshwater sediments

*Marco Bartoli, Sara Benelli, Daniele Longhi, Elisa Soana, Alex Laini, G. Castaldelli, Elisa Anna Fano, Pierluigi Viaroli*

**18:30 - CS03.19** - Linking the watershed with the adjacent sea:

the river-coastal sea continuum and the transitional zone filter

*Pierluigi Viaroli, Roberta Azzoni, Marco Bartoli, Rossano Bolpagni, Gemma Burgazzi, Gianmarco Giordani, Alex Laini, Daniele Longhi, Mariachiara Naldi, Daniele Nizzoli, Monica Pinardi, Erica Racchetti, Elisa Soana*

17:00 - 19:00

## S12 - INTEROPERABILITY TOOLS FOR E-BIODIVERSITY



Conveners: *Alessandro Oggioni, Ilaria Rosati, Paolo Tagliolato* - Hall 3

**17:00 - S12.01** - Towards semantic interoperability for plant functional diversity

*Jens Kattge, Eric Garnier, Marie-Angelique Laporte, Ulrike Stahl, Ingolf Kühn, Lutz Maicher, Stefan Klotz*

**17:15 - S12.02** - Semantic tools for functional trait-based approaches: development and applicability

*Ilaria Rosati, Angela Boggero, Nicola Fiore, Piero Franzoi, Cristiano Fugazza, Alessandro Oggioni, Alessandra Pugnetti, Leonilde Roselli, Elena Stanca, Paolo Tagliolato, Salvatrice Vizzini, Adriana Zingone, Alberto Basset*

**17:30 - S12.03** - The LifeWatch Italy e-infrastructure for biodiversity and ecosystem research

*Nicola Fiore, Alessandro Oggioni, Ilaria Rosati, Paolo Tagliolato*

**17:45 - S12.04** - Leveraging biodiversity interoperability through LifeWatch semantic resources

*Paolo Tagliolato, Alessandro Oggioni, Cristiano Fugazza, Stefano De Felici, Fabio Cianferoni, Ilaria Rosati, Nicola Fiore, Paola Carrara, Alberto Basset*

**18:00 - S12.05** - On the opportunity of exploiting Open Geospatial standards for biotic data management

*Alessandro Oggioni, Paolo Tagliolato, Cristiano Fugazza, Ilaria Rosati, Laura Criscuolo, Paola Carrara*

**18:15 - S12.06** - Building bridges - a unifying architecture for LTER Europe based on common data services

*Johannes Peterseil, Herbert Schentz, John Watkins, Nic Bertrand, Alessandro Oggioni, Tomas Kliment, Wladimir Crnojevic, Ralf Kunkel*

**18:30 - S12.07** - LifeWatch Greece: towards distributed e-infrastructures for supporting science-based solutions for biodiversity management

*Nicolas Bailly, Carlo Allocata, Evangelia Chatzinikolaou, Sarah Faulwetter, Vasilis Gerovasileiou, Alexandros Gougoisis, Kleoniki Keklikoglou, Dimitra Mavraki, Stamatina Nikolopoulou, Anastasis Oulas, Jacques Lagnel, Evangelos Pafilis, Emmanouela Panteri, Christina Pavloudi, Giorgos Perantinos, Katerina Vasileiadou, Nikos Minadakis, Yiannis Marketakis, Chryssoula Bekiari, Thodoris Patkos, Constantinos Varsos, Martin Doerr, Christos Arvanitidis*

## CS06 - FOREST ECOLOGY AND DYNAMICS



Organizer: *Simona Castaldi* - Hall 5

**17:00 - CS06.01** - Evaluation of the trade-off between productivity and Water Use Efficiency (WUE) of tree species for biomass crop under different management strategies in Mediterranean climate

*Giovanna Battipaglia, Simona Castaldi, Fabio Lombardi, Francesco Pelleri, Primo Proietti, Francesco Ripullone, Roberto Tognetti*

**17:15 - CS06.02** - Structure of alluvial forest gaps using LIDAR data with respect to invasive species

*Katalin Varga, Lothar Eysn, Balázs Deák, Cicimol Alexander, Hermann Heilmeier*

**17:30 - CS06.03** - Effective dispersal services performed by a diverse dispersal community leads to forest recovery & expansion after land abandonment

*Gema Escribano-Avila, María Calviño-Cancela, Beatriz Pías, Adrian Escudero, Emilio Virgós*

**17:45 - CS06.04** - Environmental cues for masting in *Picea glauca*  
*Edith Pounden*

**18:00 - CS06.05** - Conversion of pine-oak forest to oak shrubland after high-severity crown fire in the southwest USA

*Andrew M. Barton*

**18:15 - CS06.06** - Is prescribed burning a sustainable practice for pine trees and soil microbial community in Mediterranean Basin?

*Elisabetta Giuditta, Giovanna Battipaglia, Rossana Marzaioli, Sandro Strumia, Davide Ascoli, Assunta Esposito, Stefano Mazzoleni, Flora Angela Rutigliano*

**18:30 - CS06.07** - Effects of degradation in west African tropical forests  
*Gaia Vaglio Laurin, Riccardo Valentini*

**18:45 - CS06.08** - Investigating the interannual variability of above-ground wood growth in a temperate mature oak forest  
*Nicolas Delpierre*

17:00 - 19:00

**CS07 - EVOLUTIONARY ECOLOGY** 

*Chair: Giuseppe Nascetti - Hall 2*

**17:00 - CS07.01** - Seeds of morphometrics for the origins of agriculture.  
*Vincent Bonhomme, Emily Forster, Eleanor Stillman, Michael Wallace, Mike Charles, Glynis Jones*

**17:15 - CS07.02** - Plants against herbivores: trade-offs between defence strategies.  
*Triinu Remmel*

**17:30 - CS07.03** - Transcriptomic and phenotypic data from common gardens reveal adaptive genetic variation in a Mediterranean alpine plant.  
*Carlos Lara-Romero, Niklaus Zemp, Alfredo García-Fernández, Javier Morente-Lopez, María Luisa Rubio, Alex Widmer, Jose Maria Iriondo*

**17:45 - CS07.04** - Gynodioecy-gynomonoecy in Silene (Caryophyllaceae): frequency, gender variation and sexual dimorphism.  
*Ines Casimiro-Soriguer, Eduardo Narbona, Montserrat Arista, Maria Luisa Buidé*

**18:00 - CS07.05** - Inter-regional hybrids and heritability of increased competitive ability of an invasive species.  
*Daniel Montesinos*

**18:15 - CS07.06** - Reproductive traits affect the geographic range of Amazonian anurans.  
*Talita Ferreira Amado, Pablo Ariel Martinez, Gabriel Corrêa Costa, Janalee Paige Caldwell, Adrian Antônio Garda*

**18:30 - CS07.07** - Life on the beach: variable accumulation of anthocyanins and other flavonoids in reproductive and vegetative tissues of *Silene littorea*  
*José Carlos del Valle, Mª Luisa Buidé, Inés Casimiro-Soriguer, Justen B Whittall, Eduardo Narbona*

**18:45 - CS07.08** - Low photosynthetic plasticity in the seagrass *P. oceanica*. Implication for restoration and conservation strategies.  
*Emanuela Dattolo, Lázaro Marín-Giurao, Juan Manuel Ruiz Fernández, Gabriele Procaccini*





# Wednesday, September 23<sup>rd</sup> 2015

## SCIENCE-POLICY INTERFACE

**08:30 - 12:30**

### S13 - ISLAND AT THE CROSSROADS: CONSERVATION DILEMMAS UNDER GLOBAL CHANGES



Conveners: **Paulo A. V. Borges, Simone Fattorini** - Hall 2

**08:45 - S13.1** - Cross Archipelagos biodiversity studies: SADS and SARS  
**Paulo A. V. Borges**

**09:00 - S13.2** - Insects and the city: what island biogeography tells us about insect conservation in urban areas  
**Simone Fattorini**

**09:30 - S13.3** - MOVECLIM - cross archipelago evaluation of altitudinal patterns in bryophytes  
**Rosalina Gabriel**

**09:45 - S13.4** - What drives richness and diversification on islands - isolation vs. environment  
**Manuel Steinbauer**

**10:00 - S13.5** - Towards a constitutive theory of island biogeography  
**Michael K. Borregaard**

**10:15 - S13.6** - The biotic interaction structure of an island landscape, especially in relation to link multiplicity  
**Jens M. Olesen, Damgaard C. F., Heleno R. H., Nogales M., Vargas P., Trøjelsgaard K., Traveset A.**

**10:30 - 11:00**

### COFFEE BREAK / POSTER SESSION



**11:00 - S13.7** - Community structure and complete phylogeography of butterflies from western circum-Sicilian islands reveal biogeographic processes and selective loss of diversity  
**Raluca Voda, Leonardo Dapporto, Vlad Dincă, Tim Shreeve, Paul Hebert, Mourad Khaldi, Ghania Barech, Khellaf Rebbas, Paul Sammut, Roger Vila**

**11:15 - S13.8** - A century of floristic changes in the Tuscan Archipelago: human and scale effects  
**Alessandro Chiarucci**

**11:30 - S13.9** - Do dispersal syndromes matter? Inter-island plant dispersal in the Canaries, Galapagos and Azores  
**Ruben Heleno**

**11:45 - S13.10** - Palaeoecology and islands  
**Sandra Nogué, Lea de Nascimento, Cindy Froyd, Janet Wilmhurst, Emily Coffey, Robert Whittaker, José Maria Fernandez Palacio, Kathy J. Willis**

**12:00 - S13.11** - Approximate Bayesian Computation reveals the crucial role of oceanic islands for the assembly of continental biodiversity  
**Jairo Patiño, Alain Vanderporcen**

**12:15 - S13.12** - Hosts as islands?  
**Giovanni Strona**

**08:30 - 12:30**

### S14 - PATTERNS AND PROCESSES IN TROPICAL FOREST ECOLOGY



Conveners: **Luis Cayuela, Manuel J. Macía, Carolina Puerta-Piñero** - Hall 3

**08:45 - S14.1** - Understanding Amazonian biodiversity: how far can we get with existing data?  
**Hanna Tuomisto**

**09:00 - S14.2** - On the role of history and disequilibrium dynamics in shaping tropical forest community assembly across scales  
**Jens - Christian Svenning**

**09:30 - S14.3** - Amazon forest carbon density and dynamics  
**Oliver L. Phillips**

**10:00 - S14.4** - Above-ground biomass assessment from long-term field data  
**Alicia Ledo, Janine B. Illian, David F.R.P. Burslem**

**10:15 - S14.5** - Old data, new data and complex models to quantify structure and biodiversity responses to tropical forest degradation  
**Marion Pfeifer, Veronique Lefebvre, Philip Platts, Robert Ewers**

**10:30 - 10:00**

### COFFEE BREAK / POSTER SESSION



**11:00 - S14.6** - Natural enemies shape changes in plant diversity across a humidity gradient in central Panama  
*Lars Markesteijn, Owen T. Lewis*

**11:15 - S14.7** - Host specificity along latitudinal gradients: the case of acorn weevils in the neotropics  
*Guille Peguero, Raúl Bonal, Alberto Muñoz, José María Espelta*

**11:30 - S14.8** - Why rivers make the difference: a review on the phytogeography of river wetlands in the Amazon basin  
*Florian Wittmann, Ethan Householder*

**11:45 - S14.9** - What do we know about tropical biodiversity?  
*Luis Cayuela, Iñigo Granzow de la Cerda, Manuel Macía*

**12:00 - S14.10** - Correlates of foliar Al accumulation among populations of the Al accumulator plant *Melastoma malabathricum L.* (Melastomataceae) in response to soil chemistry and Al application  
*Khairil Mahmud, David F.R.P Burslem*

**12:15 - S14.11** - Potential seed dispersal network of the Tumbesian dry forest: the implications of fruit and body size  
*Gema Escribano-Avila, Carlos Ivan Espinosa, Andrea Jara-Guerrero*

**08:30 - 12:30**

## S15 - MULTI-SCALE MANAGEMENT OF PLANT INVASIONS AND OF THEIR IMPACTS ON ECOSYSTEM SERVICES FROM GLOBAL ANTICIPATION TO LOCAL GOVERNANCE



Conveners: *Joana Vicente, João P. Honrado, Christoph Kueffer* - Hall 4

**08:30 - S15.1** – Biological invasions in local social-ecological systems: from pattern and process to risk management and governance  
*João Honrado, Joana R. Vicente, Fantina Tedim, Joaquim M. Alonso*

**09:00 - S15.2** – Assessment of impacts of biological invasions: an analysis across established protocols  
*Pablo González Moreno, Marc Kenis, Montserrat Vilà, partners of ALIEN CHALLENGE*

**09:15 - S15.3** - Naturalization of central European plants in North America: species traits, habitats, propagule pressure, residence time  
*Petr Pyšek, Ameer M. Manceur, Christina Alba, Kirsty F. McGregor, Jan Pergl, Kateřina Stajerová, Milan Chytrý, Jiří Danihelka, John Kartesz, Jitka Klimešová, Magdalena Lučanová, Lenka Moravcová, Misako Nishino, Jiří Sádlo, Jan Suda, Lubomír Tichý, Ingolf Kühn*

**09:30 - S15.4** - Plant invasions at high altitudes and high latitudes: what drives them and how to manage them?  
*Ann Milbau, Jonas Lembrechts, Aníbal Pauchard*

**09:45 - S15.5** - Modelling land use dynamics and landscape invasibility by alien plants under contrasting social-ecological scenarios  
*Joana Vicente, João A. Cabral, João P. Honrado, Carlos Guerra, Miguel B. Araújo, David Eitelberg, Niklaus E. Zimmermann, Wilfried Thuiller, Angela Lomba, Christoph Kueffer, Huirong Yu, Peter H. Verburg*

**10:00 - S15.6** - Could biomass valorization enhance containment of widespread plant invaders?  
*Luís Silva, Lurdes Borges Silva, Lara Dutra Silva, Ana Teixeira, Rui Elias, Ina Handorf, Mário Alves*

**10:15 - S15.7** - The use of multidisciplinary research for assessing and managing biological invasions - a review  
*Ana Sofia Vaz, João Martins, Antonio J. Muñoz-Pajares, Stefan Schindler, Joana R. Vicente, David Richardson, Christoph Kueffer, João P. Honrado*

**10:30 - 11:00**

## COFFEE BREAK / POSTER SESSION



**11:00 - S15.8** - Mycorrhizal status helps explaining invasion success of neophyte plant species in Germany  
*Andreas Menzel, Stefan Hempel, Lars Götzenberger, Stefan Klotz, Mari Moora, Matthias C. Rillig, Martin Zobel, Ingolf Kühn*

**11:15 - S15.9** - Assessing impacts of plant invasions in alpine habitats of the central Chilean Andes  
*Lohengrin Cavieres, Maritza Mihoc, Anibal Pauchard*

**11:30** - Brainstorming and discussion of a potential paper for Web Ecology



08:30 - 12:30

S16 - STAYING IN THE SAME PLACE OR LAGGING BEHIND?  
PATHS AND OBSTACLES FOR CRITICAL INNOVATION  
IN ECOLOGY



Convener: **Peter Søgaard Jørgensen** - Hall 5

08:30 - Introduction- Critical innovation in ecology  
**Peter Søgaard Jørgensen**

08:45 - S16.1 - Generating, nurturing and communicating ideas in ecology  
**Paul Craze**

09:00 - S16.2 - The essential role of ecology in the Anthropocene; a call for bridging disciplines  
**Deborah Gordon**

09:15 - S16.3 - Innovation at the science-policy interface: building alliances  
**Juliette Young**

09:30 - S16.4 - Challenges in global biodiversity monitoring for the next decade  
**Henrique Pereira**

10:00 - S16.5 - Animals as global intelligent sensing network.  
**Martin Wikelski**

10:30 - 11:00

**COFFEE BREAK / POSTER SESSION**

11:00 - S16.6 - Semantic integration towards data interoperability  
**Jens Kattge, Eric Garnier**

11:15 - S16.7 - Critically needed next steps for increasing quality and efficiency in peer-reviewing  
**Janne S. Kotiaho**

11:30 - S16.8 - Ask not what your society can do for you, but what you can do for your society  
**Andrew P. Beckerman**

11:45 - S16.9 - The past and future of communication among ecologists  
**David W. Inouye**

08:30 - 12:30

**CS05 - BIODIVERSITY AND ECOSYSTEMS**



Chairman: **Giulia Ceccherelli, Simonetta Fraschetti, Simona Castaldi** - Hall 6

08:30 - **CS05.12** - A preliminary investigation of reconstructing a column-based data source from an RDF dataset  
**Carlo Allocca, Alexandros Gougenis, Christos Arvanitidis**

08:45 - **CS05.13** - Effects of *Sabella spallanzanii* (Polychaeta: Sabellidae) removal on the development of fouling communities  
**Cataldo Pierri, Paolo Colangelo, Caterina Longo**

09:00 - **CS05.14** - Diversity and structure of Mediterranean rocky reef community, from macro- to megabenthos  
**Stefania Pinna, Luigi Piazzi, Silvia Oliva, Silvia Bianchelli, Laura Tamburello, Paola Gianguzza, Giulia Ceccherelli, Chiara Bonaviri**

09:15 - **CS05.15** - Meiofaunal biodiversity in Mediterranean ecosystem alternative states  
**Silvia Bianchelli, Emanuela Buschi, Chiara Bonaviri, Stefania Pinna, Laura Tamburello, Antonio Pusceddu**

09:30 - **CS05.16** - Triggers and thresholds of multiple shifts between benthic assemblages of Mediterranean shallow rocky reefs  
**Laura Tamburello, Chiara Ravaglioli, Chiara Bonaviri, Stefania Pinna, Silvia Bianchelli, Lisandro Benedetti-Cecchi, Giulia Ceccherelli, Paola Gianguzza, Antonio Pusceddu, Fabio Bulleri**

09:45 - **CS05.17** - Ecosystem functioning nearby the largest steelworks in Europe and the main Italian naval base: the study case of the Mar Piccolo of Taranto  
**Tamara Cibic, Lucia Bongiorni, Flavio Borfecchia, Antonella Di Leo, Annalisa Franzo, Santina Giandomenico, Ana Karuza, Carla Micheli, Manja Rogelja, Lucia Spada, Paola Del Negro**

10:00 - **CS05.18** - Effect of acidification on benthic prokaryotes diversity and functioning in a shallow-water CO<sub>2</sub> vent field (Fayal Island, NE Atlantic)  
**Lucia Bongiorni, Donato Giovannelli, Sergio Stefanni, Alberto Pallavicini, Kristell De Potter, João Monteiro, Hugo Parra, Marina Carreiro-Silva**

10:15 - **CS05.19** - Benthic diatom abundance and diversity in urban stormwater ponds  
**Greta Minelgaite, Diana Agneta Stephansen, Morten Lauge Pedersen, Jes Vollertsen**



10:30 - 11:00

## COFFEE BREAK / POSTER SESSION

11:00 - **CS05.20** - The white stork *Ciconia ciconia* (Linnaeus, 1758) in the wetlands of north-east of Algeria

*Aicha Beya Mammeria*

11:15 - **CS05.21** - LIFE to ad(d)mire; mire restorations in Sweden  
*Lisa Tenning*

11:30 - **CS05.22** - Non-native species in Italian freshwater habitats: a macroecological assessment of invasion drivers.

*Paolo Colangelo*

11:45 - **CS05.23** - Build-up of virtual research environments to assessing different managerial options for Mediterranean river basins and estuaries preservation

*Clara Isabel Lujan-Martinez, Cesar Alcacer-Santos, Inmaculada Cuenca-Fernandez, Antonio Jose Saez-Albanes*

12:00 - **CS05.24** - Alpine headwaters as climate change observatories.  
*Roberta Bottarin, Ulrike Tappeiner*

12:15 - **CS05.25** - Riparian zone of a temporary river: hot spot for carabid beetle biodiversity in submediterranean karst

*Andreja Brigic*

08:30 - 12:30

## S17 - BIODIVERSITY AND ECOSYSTEM FUNCTION EXPERIMENTS WITH TREES



Convener: *Simone Mereu* - Hall 7

08:30 - **S17.1** - Biodiversity effects on functions and services of trees in the forest, the field, and the city; how can experiments help?

*Alain Paquette*

09:00 - **S17.2** - Exploring the functional significance of forest diversity: an update from the long-term biotree experiment

*Charles Andrew Nock, Florian Härtig, Michael Scherer-Lorenzen*

09:15 - **S17.3** - Response of branch architecture to neighborhood competition in a young tree diversity experiment

*Thomas Van de Peer, Kris Verheyen, Bart Muys*

09:30 - **S17.4** - Do birds see the forest for the trees? Scale-dependent effects of tree diversity on avian predation of artificial larvae

*Evalyne W. Muiruri, Kalle Rainio, Julia Koricheva*

09:45 - **S17.5** - The outcome of ecosystem manipulation by elevating atmospheric CO<sub>2</sub> is influenced by tree identity and mixture

*Andrew R. Smith, Martin Lukac, Douglas Godbold*

10:00 - **S17.6** - The role of mycorrhizae in tree diversity effects on ecosystem functioning and trophic interactions - the MyDiv research platform

*Olga Ferlian, Nico Eisenhauer*

10:15 - **S17.7** - Tree species identity influences the vertical distribution of the labile and recalcitrant carbon in a temperature deciduous forest soil.  
*Iftekhar U. Ahmed, Andrew R. Smith, David L. Jones, Douglas L. Godbold*

10:30 - 11:00

## COFFEE BREAK / POSTER SESSION

11:00 - **S17.8** - Relative importance of tree species and genetic diversity for anti-herbivore defences and insect herbivory in boreal forests

*Sandra Barantal, Glenn Iason, Juha-Pekka Salminen, Julia Koricheva*

11:15 - **S17.9** - Biodiversity effects on soil microbial respiration in a global network of tree diversity experiments

*Simone Ceserz, Nico Eisenhauer*

11:30 - **S17.10** - Effects of plant genetic diversity on arthropods: a meta-analysis

*Dexter J. L. Hayes, Julia Koricheva*

11:45 - **S17.11** - Photosynthetic efficiency of forest trees is influenced by ecological factors, stand structure and tree diversity in European forests

*Filippo Bussotti, Martina Pollastrini*

12:00 - **S17.12** - Meta-analysis of tree survival in biodiversity across the global network TreeDivNet

*Simon Bilodeau-Gauthier, Andy Hector, Bart Muys, Eric Allan, Harald Auge, Lander Baeten, Nadia Barsoum, Helge Bruehlheide, Simone Ceserz, Gislene Ganade, Nathaly Guerrero, Josephine Haase, Richard Hobbs, Mark Huxham, Hervé Jactel, Julia Koricheva, Simone Mereu, Christian Messier, Alain Paquette, John Parker, Michael Perring, Quentin Ponette, Catherine Potvin, Claire Salisbury, Michael Scherer-Lorenzen, Andy Smith, Sean Tuck, Thomas Van de Peer, Kris Verheyen*

12:15 - **S17.13** - Common gardens of the 21<sup>st</sup> Century: contribution of tree diversity experiments to sustainable reforestation

*Kris Verheyen*

08:30 - 18:30

**CS08 - AGRICULTURAL ECOLOGY**



Chairs: *Giulia Maisto, Anna De Marco* - Hall 1

**08:30 - CS08.1** - Reconciling productivity and biodiversity conservation in dry land arable fields in the Mediterranean region

*F. Xavier Sans Serra*

**08:45 - CS08.2** - Farm management and landscape structure determine the frequency of arable species characteristic of dry land cereal fields

*Roser Rotchés-Ribalta, José M. Blanco-Moreno, Laura Armengot, F. Xavier Sans Serra*

**09:00 - CS08.3** - Promoting weed regulation services in arable landscapes

*Sandrine Petit, Orla McLaughlin, Sarah Labryere, Luc Biju-Duval, Cyrille Auguste, David A. Bohan*

**09:15 - CS08.4** - The effect of mass flowering crops and field margin density on pollinators and pollination services in arable-dominated landscape

*Marian Mendoza-García, José M. Blanco-Moreno, Lourdes Chamorro, F. Xavier Sans Serra*

**09:30 - CS08.5** - Landscape complexity, organic agriculture and reward crops: what is good for pollinators is good for plant pollination?

*José M. Blanco-Moreno, Marian Mendoza-García, Berta Caballero-López, Laura Armengot, Lourdes Chamorro, Laura José-María, Roser Rotchés-Ribalta, Paola Baldivieso Freitas, F. Xavier Sans Serra*

**09:45 - CS08.6** - Impact of agricultural landscape on butterfly communities in France

*Benoît Fontaine, Théophile Olivier, Elodie Tinland, Frédéric Archaux*

**10:00 - CS08.7** - Effects of agricultural practices on soil microbial biomass

CNP content: a preliminary case-study

*Fernando Amaral Santos, Manuela Abelho*

**10:15 - CS08.8** - Afforestation effect on the soil microarthropod communities in the former agricultural lands in Vidzeme Upland

*Janis Ventins, Inita Pastare, Raimonds Kasparinskis, Olgerts Nikodemus, Dana Prizavoite*

10:30 - 11:00

**COFFEE BREAK / POSTER SESSION**



**11:00 - CS08.09** - Spatial distribution of greenhouse whiteflies in tomato crops

*Henry Alexander Bustos Rodriguez, Francesco Accatino, Stefan Vidal, Kerstin Wiegand*

**11:15 - CS08.10** - The bioprint pilot project: Ciliated protozoa communities as a tool to assess soil quality in agroecosystems and natural sites of Marche region (Italy)

*Antonietta La Terza, Daizy Bharti, Santosh Kumar*

**11:30 - CS08.11** - A maize trophic chain indicator of agricultural management change on biological control

*Agnès Ardanuy Gabarra, Marina R.J. Lee, Ramon Albajes*

**11:45 - CS08.12** - Crop genetic diversity benefits farmland biodiversity and ecosystem services in cultivated fields

*Emmanuelle Porcher, Consortium Wheatamix*

**12:00 - CS08.13** - The effect of land-use change on ecosystem services in semi-natural boreal ecosystems

*Line Johansen, Sølvi Wehn, Simon Taugourdeau*

**12:15 - CS08.14** - Assessment of carbon sequestration in olive orchards using eddy covariance techniques - with and without weed cover

*Sonia Chamizo, Penélope Serrano-Ortiz, Enrique P. Sánchez-Cañete, Ana López-Ballesteros, Andrew S. Kowalski*

**12:30 - 17:45**  
**BREAK**

**17:45 - CS08.15** - The effect of insecticide use on the aerial food webs of olive crops

*Marina Morente, Mercedes Campos, Francisca Ruano*

**18:00 - CS08.16** - Enhanced use of crop varietal diversity to manage pests and diseases in agricultural ecosystems

*Devra Ivy Jarvis, John Wasswa Mulumba, Huaxian Peng, Yayun Yang, Mustapha Arbaoui, José Ochoa, Carmen Suarez, Pamela Paparu, Jie Wu, Loubna Belqadi, Paolo Coangelo, Rose Nankya, Anthony HD Brown, Timothy Daniel Murray, Chunming Lu, Godfrey Kagezi, Juan Pazmino, Yunyue Wang, Keyu Bai, Paola De Santis, Chunlin Long, Enlai Zhang, Carlo Fadda, Mohammed Sadiki, Maria Holzinger*

**18:15 - CS08.17** - Assessing the biodiversity value of wet grasslands: can selected plant and insect taxa be used as rapid indicators of species richness at a local scale?

*Margaret Hayes*

12:30 - 13:15

**PL04 - THE EFFECTS OF CLIMATE CHANGE ON PHENOLOGY OF WILDFLOWERS AND ANIMALS IN THE COLORADO ROCKY MOUNTAINS**



*David W. Inouye* - Hall 1

13:15 - 14:15

**LUNCH / POSTER SESSION**



14:15 - 15:45

**RT02 - FRONTIERS AND FUTURE PERSPECTIVES FOR ECOLOGICAL RESEARCH**



Convener: *Stefan Klotz* - Hall 1

15:45 - 16:30

**PL05 - GLOBAL CHANGE AND ECOSYSTEM RESPONSE: CROSS-SCALE INTERACTIONS AND THE CHAIN OF UNCERTAINTIES**



*Antonello Provenzale* - Hall 1

16:30 - 17:00

**COFFEE BREAK / POSTER SESSION**



17:00 - 17:45

**PL06 - METABOLISM OF MEGACITIES**



*Christopher Kennedy* - Hall 1

17:30 - 19:00

**S18 - COMBINING EARTH OBSERVATIONS WITH EXPERIMENTAL STUDIES FOR DEVELOPING SUSTAINABLE ECOSYSTEM SERVICES AND NATURAL RESOURCES**



Convener: *Andrea Taramelli* - Hall 7

**17:30 - S18.1** - How to use natural ecosystems for coastal defense: understanding ecosystem creation & dynamics

*Tjeerd Bouma* et al.

**18:00 - S18.2** - Using the satellite image archives for coastal and marine ecosystems services monitoring

*Emiliana Valentini, Andrea Taramelli, Federico Filippone, Alessandra Nguyenxuan, Francesco Maria Passarelli*

**18:15 - S18.3** - Coastal protection: a sustainable ecosystem service?  
*M. Luisa Martinez, Rodolfo Silva, Octavio Pérez-Maqueo, Gabriela Mendoza, Edgar Mendoza*

**18:30 - S18.4** - Data assimilation of remote sensing images in a portable operational forecasting blooms system: study case algae blooms in the North Sea  
*El Serafy*

**18:45 - S18.5** - Deltaic margins vulnerability: the role of landscape patches in flood regulation and climate adaptation  
*Andrea Taramelli, Emiliana Valentini, Alessandra Nguyenxuan, Federico Filippone*

**CS02 - GLOBAL CHANGE ECOLOGY**



Chair: *Cristina Maguas* - Hall 5

**17:45 - CS02.13** - Climate change increases herbivory in ectothermic omnivores

*Bruno Martins Carreira, Nuno Gonçalves, Vanessa Pinto, Germán Orizaola, Pedro Segurado, Anssi Laurila, Rui Rebelo*

**18:00 - CS02.14** - Predicting the likely impacts of future afforestation on birds of conservation concern

*Ilse Corkery*

**18:15 - CS02.15** - Preindustrial, present and future [CO<sub>2</sub>] effects on wheat are modulate by water availability

*Salvador Aljazairi, Salvador Nogues*

**18:30 - CS02.16** - A meta-analysis and an experimental test of variations in the impact of non-native seaweeds along gradients of habitat degradation  
*Fabio Bulleri, Elena Maggi, Lisandro Benedetti-Cecchi, Chiara Ravaglioli, Luca Rindi, Alexander James Rattray, Laura Tamburello*

**18:45 - CS02.17** - Regime shifts and the maintenance of alternative states on rocky reefs in the new Mediterranean

*Lisandro Benedetti-Cecchi, Fabio Bulleri, Elena Maggi, Martina Dal Bello, Chiara Ravaglioli, Andrea Cucco*



17:45 - 19:00

**CS09 - ECOLOGICAL MODELLING & BODY SIZES  
ALLOMETRIES AND PATTERNS**



Chair: *John Halle*y - Hall 3

**17:45 - CS9.1** - The speed of biodiversity decay in fragmented landscapes  
*John M. Halle*y, *Nikolaos Monokrounos*, *Antonios D. Mazaris*, *Despoina Vokou*

**18:00 - CS9.2** - Stochastic differential equations and outbreaks modeling  
*Markos Avlonitis*, *Alberto Basset*

**18:15 - CS9.3** - Non-linear power law approach for spatial and temporal pattern analysis of salt marsh evolution  
*Fabio Bozzeda*, *Emiliana Valentini*, *Loreta Cornacchia*, *Andrea Taramelli*

**18:30 - CS9.4** - Assessing the predictive ability of mechanistic models for the Haitian cholera epidemic  
*Lorenzo Mari*, *Renato Casagrandi*, *Enrico Bertuzzo*, *Flavio Finger*, *Andrea Rinaldo*, *Marino Gatto*

**18:45 - CS9.5** - Body size - abundance scaling relationships in benthic community: a deeper insight  
*Francesco Cozzoli*

17:45 - 19:00

**CS10 - POPULATION AND COMMUNITY ECOLOGY,  
FOOD WEBS NETWORKS AND COMPLEXITY**



Chairs: *Frank Berendse*, *Renato Casagrandi*, *Lisandro Benedetti-Cecchi*  
- Hall 4

**17:45 - CS10.1** - Spatial self-organization stabilizes dynamics of plant communities  
*Frank Berendse*, *Maarten Geuskens*

**18:00 - CS10.2** - Understanding community assembly mechanisms and functioning through integrative approaches  
*Canan Karakoç*, *Yue Lin*, *Antonis Chatzinotas*

**18:15 - CS10.3** - Functional vs. phylogenetic perspectives of the assembly process in gypsum communities along an aridity gradient  
*Arantzazu L. Luzuriaga*, *Pablo Ferrandis*, *Esmeralda Martínez-Duro*, *Joel D. Flores*, *Adrián Escudero*

**18:30 - CS10.4** - Vegetation spatial patterns identify alternative multifunctionality states in global drylands  
*Miguel Berdugo*, *Sonia Kéfi*, *Santiago Soliveres*, *Fernando Tomás Maestre*

**18:45 - CS10.5** - Allelopathic effect of *A. herba-alba* on soil seed bank in a semiarid plant community, NE Spain  
*Antonio Ignacio Arroyo*, *Yolanda Pueyo*, *Ramon Reine*, *Ana Foronda*, *Maria Luz Giner*, *Concepcion Alados*





# Thursday, September 24<sup>th</sup> 2015

## BIODIVERSITY AND ECOSYSTEMS



08:30 - 12:30

### S19 - VITO VOLTERRA SYMPOSIUM ON MATHEMATICAL MODELS IN ECOLOGY



Convener: **Marino Gatto** - Hall 1

08:30 - Opening remarks

**Marino Gatto**

09:00 - S19.1 - Models for resource competition: a brief personal review

**Andrea Pugliese, Mimmo Iannelli**

09:30 - S19.2 - Key players in ecological interaction networks: from graph theory to conservation

**Ferenc Jordán**

09:45 - S19.3 - The role of heterogeneity on the invasion probability of mosquito-borne diseases in multi-host models

**Luca Bolzoni, Andrea Pugliese, Roberto Rosà**

10:00 - S19.4 - Floquet theory for seasonally forced models of waterborne pathogen transmission

**Lorenzo Mari, Renato Casagrandi, Manuela Ciddio, Marino Gatto**

10:15 - S19.5 - Modelling the effects of tick-host interaction on pathogen dynamics: TBE as a case study

**Roberto Rosà, Lorenzo Bolzoni, Francesca Cagnacci, Hauffe Heidi Cristine, Valentina Tagliapietra, Luca Ferreri, Mario Giacobini, Maria Kazimirova, Anna-paola Rizzoli**

10:30 - 11:00

### COFFEE BREAK / POSTER SESSION



11:00 - S19.6 - Rainfall intermittency and savanna dynamics

**Antonello Provenzale, Donatella D'Onofrio, Mara Baudena, Max Rietkerk, Fabio D'Andrea**

11:15 - S19.7 - On the Lotka-Volterra population games

**Vlastimil Krivan**

08:30 - 12:30

11:30 - S19.8 - Biological control of the chestnut gall wasp with *T. sinensis*: a mathematical model

**Francesco Paparella, Chiara Ferracini, Alessandro Portaluri, Alberto Alma**

S20 - LONG TERM ECOLOGICAL RESEARCH (LTER) - THE EUROPEAN PERSPECTIVE



Convener: **Stefan Klotz** - Hall 2

08:30 - Opening remarks

**Stefan Klotz**

08:45 - S20.1 - eLTER - European backbone infrastructure for integrated long-term ecosystem, critical zone and socio-ecological system research

**Michael Mirtl, Ingolf Kühn**

09:15 - S20.2 - Aims and challenges of the scientific analyses of long-term ecological research

**Ingolf Kühn, Michael Mirtl**

09:45 - S20.3 - Long-term ecological research on soil carbon sequestration: evidence from three European grassland experiments

**Dario Fornara**

10:15 - S20.4 - Long-term bee and bird communities observation in agricultural landscapes: what are the drivers of temporal changes?

**Mark Frenzel, Jeroen Everaars, Oliver Schweiger**

### COFFEE BREAK / POSTER SESSION



11:00 - S20.5 - Changes in retention of sulphur and nitrogen compounds at 18 European LTER/ICP IM sites in 1990-2012

**Martin Forsius, Jussi Vuorenmaa**

11:30 - S20.6 - Insights from long-term monitoring data in freshwater species distribution models: predictions for stream macroinvertebrates in the German LTER-site Rhine-Main-Observatory

**Mathias Kuemmerlen, Stefan Stoll, Andrea Sundermann, Peter Haase**

**12:00 - S20.7** - Riding through ecosystems and biodiversity: long-term Italian ecosystem research for the citizens

*Alessandra Pugnetti, Caterina Bergami, Alessandro Campanaro, Paola Carrara, Laura Criscuolo, Domenico D'Alelio, Michele Freppaz, Andrea Lami, Margherita Maggioni, Giorgio Matteucci, Maria Grazia Mazzocchi, Alessandro Oggioni, Bruno Petriccione, Mariangela Ravaioli, Michela Rogora, Alberto Basset*

**12:15 - S20.8** - LTSER platform Poloniny (Slovakia) undergoing significant changes

*Halada Ľuboš, Bezák Peter, Gajdoš Peter, David Stanislav, Majzlan Oto, Žila Pavel, Bača Andrej*

**08:30 - 12:30**

#### S21 - THE CHALLENGE OF MANAGING MULTIPLE STRESSORS IN MARINE REGIONS: SUCCESS STORIES, OPPORTUNITIES FOR ACTION AND GAPS OF KNOWLEDGE



*Conveners: Fiorenza Micheli, Simonetta Fraschetti, Laura Airoldi, Elena Gissi - Hall 3*

**08:30 - S21.1** - Cumulative human impacts in marine ecosystems: setting priorities for regional conservation planning

*Fiorenza Micheli*

**08:45 - S21.2** - Gaps of knowledge and limitations in marine/maritime spatial planning: a lesson from the Mediterranean Sea

*Simonetta Fraschetti, Giulio Farella, Francesco De Leo*

**09:00 - S21.3** - Multiple stressors and thresholds in real world marine ecosystems

*Simon Trush*

**09:15 - S21.4** - Besides mitigation and adaptation: managing for synergistic interactions between local and global stressors as resilience approach to climate change policies

*Laura Airoldi, E. M Strain, Vito Frontuto, Silvana Dalmazzone*

**09:30 - S21.5** - How to apply an ecosystem-based approach using ecosystem services mapping to Maritime Spatial Planning. Learning from ADRIPLAN

*Elena Gissi, Federica Appiotti, Denis Maragno, Irene Bianchi, Francesco Musco, Alessandro Sarretta, Stefano Menegon, Andrea Vianello, Pierpaolo Camponostri*

**09:45 - S21.6** - MSP as a tool to minimize conflicts between human activities and ecosystem components: examples from Greek waters

*Vassiliki Vassilopoulou*

**10:00 - S21.7** - Public perceptions of beach nourishment and conflict management strategies: a case study of Portonovo Bay in the Adriatic Italian Coast

*Gabriele Prati, Cinzia Albanesi, Luca Pietrantoni*

**10:15 - S21.8** - A bio-economic model of the value of the ecosystem services provided by Posidonia meadows

*Stefano Focardi, Massimo Materassi, Letizia Di Bartolo, Fabio Bulleri, Chiara Ravaglioli, Laura Tamburello, Silvana Dalmazzone, Vito Frontuto*

**10:30**

#### COFFEE BREAK / POSTER SESSION



**11:00 - S21.9** - Compounded effects of ocean acidification and nutrient enrichment on the seagrass *Posidonia oceanica* and the associated epiphytic community

*Chiara Ravaglioli, Gabriele Procaccini, Laura Tamburello, Maria Cristina Buia, Giuseppina Pardi, Debora Fontanini, Alessandro Capocchi, Fabio Bulleri*

**11:15 - S21.10** - Lack of recruitment, sand burial and spread of introduced plants regulate the recovery of natural and anthropic bare patches in coastal dunes

*Giulia Ceccherelli, V. Cusseddu, Stefania Pisano, Stefania Pinna, Mark D. Bertness*

**11:30 - S21.11** - Applying molecular tools to decision making for marine ecosystem conservation. The case of the seagrass meadows

*Gabriele Procaccini, Marlene Jahnke, Chiara Lauritano*

#### S22 - SOIL QUALITY AND HEALTH



*Convener: Simona Castaldi - Hall 4*

**08:30 - S22.1** - Plant-microbial interactions in a Mediterranean ecosystem lead to short-circuited soil N cycle

*Simona Castaldi, Ana Rey, Rossana Marzaioli, Massimo Pindo, Flora Angela Rutigliano, Francesco Miglietta*

**09:00 - S22.2** - Diversity of arbuscular mycorrhizal fungi in human-impacted and natural habitats

*Maarja Öpik, Martin Zobel, Mari Moora*

**09:30 - S22.3** - At the root of plant health and nutrition: the role of arbuscular mycorrhizas

*Paola Bonfante, Marco Giovannetti, Matteo Chialva, M. Novero, A. Salvioli, X. Xienan, V. Volpe*

**10:00 - S22.4** - Inhibitory effects of extracellular self-DNA: a new mechanism for negative plant-soil feedbacks and soil sickness

*Giuliano Bonanomi, Guido Incerti, Maria Luisa Chiusano, Pasquale Termolino, Mauro Senatore, Francesco Giannino, Fabrizio Cartenì, Max Rietkerk, Virginia Lanzotti, Stefano Mazzoleni*

**10:30 - 11:30**

#### COFFEE BREAK / POSTER SESSION



**11:00 - S22.5** - Modeling soil functions and indicators of soil health with biogeochemical models – current approaches and knowledge gaps

*Klaus Butterbach-Bahl, David Kraus, Ralf Kiese, Edwin Haas*

**11:30 - S22.6** - Soil fauna: key to soil organic matter dynamics and modelling

*Juan José Jiménez, Juliane Filser*

**08:30 - 12:30**

#### S23 - NEW EMERGING DRIVERS OF CARBON AND NUTRIENT CYCLES UNDER A DRIER AND WARMER CLIMATE



*Conveners: Jose Gruenzweig, Ana Rey - Hall 5*

**08:30** - Opening remarks

*Jose Gruenzweig, Ana Rey*

**08:45 - S23.1** - Biotic attributes as drivers of nutrient cycling in drylands under global change

*Fernando T. Maestre*

**09:15 - S23.2** - Soil carbon cycling in a drier world: lessons from abiotic processes in drylands

*Heather L. Throop*

**09:45 - S23.3** - Ecosystem carbon and nitrogen dynamics in response to climate extremes

*Michael Bahn*

**10:15 - S23.4** - Microbial decomposition of plant litter under dry conditions

*Yael Navon, Daniel Glikman, José M. Grünzweig*

**10:30 - 11:00**

#### COFFEE BREAK / POSTER SESSION



**11:00 - S23.5** - Processes driving the ecosystem carbon balance in North American deserts under climate change

*Jay Arnone, Jasoni R.L., Fenstermaker L.F., Wohlfahrt G.*

**11:30 - S23.6** - Tradeoffs between ecosystem carbon sequestration and surface radiation budget under dry conditions

*Dan Yakir, Eyal Rotenberg, Efrat Ramati, Shani Rohatyn, Feyodor Tatarinov*

**12:00 - S23.7** - Warming-induced stimulation of carbon uptake in a Mediterranean garrigue: a possible involvement of nitrogen cycle

*Gabriele Guidolotti, Dario Liberati, Giovanbattista de Dato, Paolo De Angelis*

**08:30 - 12:30**

#### S24 - HIGH NATURE VALUE FARMLAND: TOWARDS MORE EFFECTIVE CONSERVATION AND MONITORING OF BIODIVERSITY ACROSS EUROPEAN LANDSCAPES



*Conveners: Angela Lomba, João Honrado, Sebastian Klimek, Davy McCracken - Hall 6*

**08:30 - S24.1** - Identifying and supporting High Nature Value farming systems: an overview

*Davy McCracken*

**09:00 - S24.2** - Looking back and the way forward: assessing the vulnerability and resilience of High Nature Value farmlands in time

*Angela Lomba, Martin Zobel, Mari Moora*

**09:30 - S24.3** - High Nature Value farming: from indication to conservation

*Sebastian Klimek, Doreen Gabriel, Jens Dauber, Sabrina Jerrentrup, Stefan Mecke, Michael Strohbach*

**10:00 - S24.4** - Supporting HNV farmland conservation: lessons learnt and future needs for science into policy and practice

*James Moran, Pamela Boyle, John Finn, Mike Gormally, Stuart Green, Margaret Hayes, Gwyn Jones, Patrick McGurn Daire O hUallachàin, Caroline Sullivan*

**10:30**

#### COFFEE BREAK / POSTER SESSION



**08:30 - 12:30**

**11:00 - S24.5** - Development of a nature value index for pastoral farmland – a rapid farm-level assessment

*Pamela Boyle, Margaret Hayes, Michael Gormally, Caroline Sullivan, James Moran*

**11:15 - S24.6** - National distribution and typologies of High Nature Value (HNV) farmland in Ireland and how this can aid targeting

*Caroline Sullivan, John Finn, Shafique Matin, Stuart Green and James Moran*

**11:30 - S24.7** - The map and the territory - findings from the characterization of HNV farming in France

*Xavier Poux*

**11:45 - S24.8** - Challenges in monitoring the High Nature Value of Mediterranean extensive silvo-pastoral farm systems

*Carlos Guerra, Teresa Pinto-Correia, Carla Azeda, Mara Almeida, Sergio Godinho, Nuno Guiomar*

**12:00** - Round table and discussions:

European Forum on Nature Conservation and Pastoralism (EFNCP). High Nature Value farmlands: towards more effective conservation and monitoring of biodiversity across European landscapes



**08:30 - 12:30**

**S25 - ECOLOGISTS' STRATEGIES AT SCIENCE-POLICY INTERFACES: HOW CAN SOCIAL SCIENCES HELP?**

*Conveners: Audrey Coreau, Laurent Mermet, Aleksandar Rankovic, Sebastian Treyer* - Hall 7

**08:30** - Opening remarks

*Aleksandar Rankovic*

**08:45 - S25.1** - Ecology and environmental conservation: a long history of interaction

*Stephen Bocking*

**09:15 - S25.2** - Different in terms of disciplines or differing about conservation goals? The variable meaning of collaboration between ecologists and social scientists

*Laurent Mermet*

**09:45 - S25.3** - Interfacing conservation science and biodiversity politics: what impact the IPBES, what impact the individual researcher?

*Alice B.M. Vadrot*

**10:30 - 11:00**

**10:00 - S25.4** - Economists and ecologists as contributors in multi-dimensional decision-making processes

*Yann Laurans*

**10:15 - S25.5** - Embedding ecology into policy contexts

*Juliette Young, Kerry Waylen*

**COFFEE BREAK / POSTER SESSION**

**11:00 - S25.6** - When good intentions fail: a systematic analysis of conservation outcomes and suggestions for improvement

*Zoe Nyssa*

**11:15 - S25.7** - Strategic intervention for enhancing conservation NGOs actions - the case of an ecological research foundation, la Tour du Valat, France

*Fanny Guillet*

**11:30 - S25.8** - Is strategic reflexivity useful for researchers in ecology? The example of a partnership with a conservation NGO

*Audrey Coreau*

**12:30 - 13:15**

**PL07 - VOLTERRA'S LEGACY: VARIATIONS AND FLUCTUATIONS IN THE NUMBERS OF COEXISTING SPECIES**

*Jef Huisman* - Hall 1

**13:15 - 14:15**

**LUNCH / POSTER SESSION**

**13:45 - 16:00**

**WS04 - ILTER NITROGEN INITIATIVE**

*Organizer: ILTER group* - Hall 5

**13:45 - 16:00**

**WS05 - ILTER CARBON INITIATIVE**

*Organizer: ILTER group* - Hall 6

**13:45 - 16:00**

**WS06 - THE EMERGENCE OF WICKED PROBLEMS IN COUPLED HUMAN AND NATURAL SYSTEMS: CONTRIBUTIONS OF THE ILTER TO A PARTNERSHIP**

*Organizer: ILTER group* - Hall 7

**14:15 - 15:00**

**PL08 - PATTERNS OF PLANT INVASIONS IN AND FROM CENTRAL EUROPE**

*Ingolf Kühn* - Hall 1

15:00 - 16:30

RT03 - ENHANCING SYNERGIES AMONG RESEARCH INFRASTRUCTURES AND JOINT PROGRAMMING INITIATIVES ON KEY ENVIRONMENTAL PRIORITIES



Convener: *Maria Uccellatore* - Hall 1

16:30 - 17:00

COFFEE BREAK / POSTER SESSION



16:30 - 19:30

S26 - LONG-TERM ECOLOGICAL RESEARCH: ENVIRONMENTAL SIGNALS AND LARGE SCALE INSIGHTS FROM A GLOBAL NETWORK – ILTER



Conveners: *Giorgio Matteucci, Manuel Maass, Hideaki Shibata, Michael Mirtl* - Hall 2

16:30 - Introduction

*Hideaki Shibata*

16:45 - S26.1 - Effects of changing land use and climate on grassland biogeochemistry in the Austrian Alps

*Michael Bahn*

17:15 - S26.2 - UNESCO International Hydrological Programme – Ecohydrology, engineering harmony for a sustainable world

*Giuseppe Arduino*

17:45 - S26.3 - Nitrogen cycle - LTER challenges and INI perspectives

*Mark Sutton*

18:15 - Discussion

18:30 - S26.4 - LTER Italy: a really trans-domain, trans-disciplinary LTER network

*Giorgio Matteucci, Maria Grazia Mazzocchi, Alessandro Campanaro, Lucilla Capotondi, Bruno Cataletto, Andrea Lami, Renzo Motta, Caterina Bergami, Alessandra Pugnetti, Mariangela Ravaoli*

18:45 - S26.5 - Long-term ecological research at the Gran Paradiso National Park (GPNP), Italy

*Antonello Provenzale, Bruno Bassano, Achaz von Hardenberg, Ramona Viterbi, Rocco Tiberti, Cristiana Cerrato*

17:00 - 17:45

CS11 - MACROECOLOGY & SCALING



Chair: *Edoardo Calizza* - Hall 4

17:00 - CS11.1 - Linking and predicting biodiversity patterns from fine to large spatial scales

*Sandro Azaele, Amos Maritan, Stephen J Cornell, Samir Suweis, Jayanth R Banavar, Doreen Gabriel, William E Kunin*

17:15 - CS11.2 - Mapping forested areas with most unique features. Are they hosting most endemic forest bird species?

*Roxanne Leberger*

17:30 - CS11.3 - Do biocrusts need to be considered in drylands monitoring (by means of remote sensing techniques)?

*Emilio Rodriguez-Caballero, Tanja Knerr, Bettina Weber*

CS09 - ECOLOGICAL MODELLING & BODY SIZES  
ALLOMETRIES AND PATTERNS



Chair: *John Hally* - Hall 5

17:00 - CS09.6 - The interacting effects of parameter uncertainty and demographic stochasticity on the establishment success of introduced species, and our ability to predict them

*Gian Marco Palamara, Francesco Carrara, Owen Petchey, Matthew Smith*

17:15 - CS09.7 - Can I trust my models? Sensic: an R package for model diagnostics in comparative biology

*Caterina Penone, Gustavo Brant Paterno, Gijsbert Werner, Pablo Ariel Martinez*

17:30 - CS09.8 - Optimal flow for brown trout: habitat - prey optimization

*Riccardo Fornaroli, Riccardo Cabrini, Laura Sartori, Francesca Marazzi, Valeria Mezzanotte, Sergio Canobbio*

17:45 - CS09.9 - Species distribution modelling applied to the open ocean: global trends and uncertainties in phytoplankton richness patterns

*Damiano Righetti, Niklaus E. Zimmermann, Achilleas Psomas, Meike Vogt, Nicolas Gruber*

18:00 - CS09.10 - Modeling of *Ostreopsis cf. ovata* bloom events from me-  
teo-marine data

*Valentina Asnaghi, Ennio Ottaviani, Andrea Pedroncini, Rosa Maria Bertolotto, Mariachiara Chiantore*

17:00 - 19:00

**CS10 - POPULATION AND COMMUNITY ECOLOGY, FOOD WEBS NETWORKS AND COMPLEXITY** 

*Chairs: Frank Berendse, Renato Casagrandi, Lisandro Benedetti-Cecchi*  
- Hall 1

**17:00 - CS10.6** - Trophic changes and food web dynamics in Lake Maggiore (Italy)  
*Lorenzo Righetto, Paco Melia, Marino Gatto, Renato Casagrandi*

**17:15 - CS11.7** - Parasite introduction by translocation of infected fish: the case of *Acanthocephalus rhinensis*  
*Luisa Giari, Bahram Sayyaf Dezfuli, Massimo Lorenzoni, Giuseppe Castaldelli, Elisa Anna Fano*

**17:30 - CS11.8** - Deep dwelling population of Mediterranean red coral: back to the future  
*Alessandro Cau, Lorenzo Bramanti, Marzia Bo, Rita Cannas, Simonepietro Canese, Michela Angiolillo, Danila Cuccu, Maria Cristina Follesa, Katell Guizien*

**17:45 - CS11.9** - Interspecific density-dependent habitat selection and the role of secondary habitats in steppe birds  
*Rocio Tarjuelo, Juan Traba, Manuel Borja Morales, Douglas W. Morris*

**18:00 - CS11.10** - Influence of soil microbial communities on plant competition  
*Francisco I. Pugnaire, Sara Hortal, Cristina Armas, Yudi M. Lozano, Felipe Bastida, José L. Moreno, Carlos G. Izquierdo*

**18:15 - CS11.11** - On the season-diversity relationship  
*Jarad Mellard, Michel Loreau*

**18:30 - CS11.12** - The role of local biotic adaptation in structuring plant communities  
*Marina Semchenko, Siim Nettan, Anette Sepp, Maria Abakumova, Rein Kalamees, Anu Lepik, Kersti Püssa, Sirgi Saar, Marge Thetloff, Qiaoying Zhang, Kristjan Zobel*

**18:45 - CS11.13** - Assessment of ecological thresholds between and within macroinvertebrate metacommunities of lotic systems  
*Vasileios Aschonitis, Giuseppe Castaldelli, Elisa Anna Fano*

17:00 - 19:00

**CS12 - BIOGEOGRAPHY AND LANDSCAPE ECOLOGY** 

*Chair: Giulia Maisto* - Hall 3

**17:00 - CS12.1** - The effects of landscape diversity and landscape character changes on landscape functions  
*Hakan Doygun, Sule Kisakurek, Osman Uzun, Nurdan Erdogan, Aican Kop, Sercan Gulci*

**17:15 - CS12.2** - Climatic stability, evolutionary history and global patterns in mammal functional diversity  
*Marco Girardello, Jens-Christian Svenning*

**17:30 - CS12.3** - Spatial structuration of anthropogenic drivers of environmental change in coastal areas  
*Pascal Marty, Daeden Jonathan*

**17:45 - CS12.4** - Analyzing spatial distribution of plant species in a Mediterranean island: a geostatistical approach  
*Georgios K. Vasiotis, Phaedon C. Kyriakidis, Panayiotis G. Dimitrakopoulos*

**18:00 - CS12.5** - Landscape metrics as indicators of coastal morphology and its use in ecological niche modelling of seagrass species  
*Rosa M. Chefaoui, Jorge Assis, Carlos M. Duarte, Ester A. Serrão*

**18:15 - CS12.6** - Mountain biogeography: does the temporal evolution in "sky island" area matter?  
*Silvio Marta, Federica Lacasella, Donatella Cesaroni, Valerio Sbordoni*

**18:30 - CS12.7** - The importance of private greenspaces for ecological connectivity in Paris: the example of *Pipistrellus pipistrellus*  
*Anne Mimet, Christian Kerbiriou, Richard Raymond, Laurent Simon*

**18:45 - CS12.8** - Diachronical analysis of river mesohabitat and riparian vegetation evolution: (Panaro river case study)  
*Bruna Gumiero, Daniele Lenzi, Stefano Fabbri, Barbara Belletti, Giovanna Puppi*



17:00 - 19:00

## S27 - SUSTANABILITY EDUCATION FOR A NEW CITIZENSHIP



Conveners: **Giuseppe Barbiero, Caterina Lorenzi** - Hall 6

17:00 - Opening remarks

**Caterina Lorenzi, Giuseppe Barbiero**

17:15 - S27.1 - Ecological aspects in food education

**Annastella Gambini, Marta Bettinelli**

17:30 - S27.2 - School children monitor the environment and develop care and understanding of nature within the framework of the LTER-EDU Program

**Yael Navon**

17:45 - S27.3 - Teaching pre-school children about sustainability through movies

**Maria Varsama**

18:00 - S27.4 - Discovering ecology through Research Game

**Franca Sangiorgio, Caterina Lorenzi, Nicola Fiore, Sara Montinaro, Alberto Basset**

18:15 - S27.5 - When citizens do science: an overview of public participation in scientific research in Italy

**Flavia Bartoccianni, Gianfranco Gliozzo, Caterina Lorenzi, Andrea Sforzi, Mukri Haklay**

17:45 - S27.6 - Affective ecology for sustainability

**Giuseppe Barbiero**

17:45 - 19:00

## CS13 - BIOGEOCHEMISTRY IN TERRESTRIAL & AQUATIC ECOSYSTEM



Chair: **Giuseppe Castaldelli** - Hall 4

17:45 - CS13.1 - Soil CO<sub>2</sub> emissions change after climate change experiment in the Arctic

**Philipp R. Semenchuk, Casper T. Christiansen, Paul Grogan, Bo Elberling, Elisabeth J. Cooper**

18:00 - CS13.2 - Analyzing pulse-dynamic of CO<sub>2</sub> fluxes on biocrusts

**Yolanda Canton Castilla, Sonia Chamizo, Isabel Miralles, Enrique Sanchez-Cañete, Emilio Rodriguez-Caballero, Francisco Domingo**

18:15 - CS13.3 - Nitrogen sources, export and internal buffer in watersheds with multiple anthropogenic pressures: comparison among tributaries of the Po river system (northern Italy)

**Elisa Soana, Giuseppe Castaldelli, Monica Pinardi, Daniele Nizzoli, Erica Racchetti, Alex Laini, Elisa Anna Fano, Pierluigi Viaroli, Marco Bartoli**

18:30 - CS13.4 - Effects of nitrogen fertilization on microbial enzyme activity and the carbon sequestration ability of grassland soils

**Valeria L. Cenini, Dario Arturo Fornara, Geoffrey McMullan, Nigel Ternan, Kate Lajtha, Mick Crawley**

18:45 - CS13.5 - The δ15N signature of pollinating insects along an urbanization gradient in the Ile-de-France region

**Benoît Geslin, Aleksandar Rankovic, Anne Barbillon, Véronique Vaury, Abbadie Luc, Isabelle Dajoz**

## CS14 - ECOLOGY & SOCIETY



Chair: **Marco Alberto Bologna** - Hall 5

18:15 - CS14.1 - Ecology & society: applying evolutionary biology to address global challenges

**Peter Søgaard Jørgensen**

18:30 - CS14.2 - Bringing together scientists and reintegrated gardeners: the use of citizen science to enhance conservation education

**Anne Dozieres, Julie Scapino, Benoit Fontaine, Romain Julliard**

18:45 - CS14.3 - Monitoring the insects and public involvement: the challenge of the life project "MIPP"

**Emanuela Maurizi, Alessandro Campanaro, Alessandro Cini, Michela Maura, Lara Redolfi de Zan, Livia Zapponi, Gloria Antonini, Marco Bardiani, Stefano Chiari, Sonke Handersen, Emiliano Mancini, Fabio Mosconi, Paolo Audisio, Marco Alberto Bologna, Alessandro Bottacci, Giuseppe Maria Carpaneto, Panella Marco, Pio Federico Roversi, Giuseppino Sabbatini, Franco Mason**





# Friday, September 25<sup>th</sup> 2015

## NUTRITION AND RESOURCES

08:30 - 09:15

### PL09 - VULNERABILITY AND RESILIENCE OF COASTAL ECOSYSTEMS AND FISHERIES TO CLIMATE CHANGE



*Fiorenza Micheli* - Hall 1

09:15 - 10:15

### CS15 - PHYSIOLOGICAL ECOLOGY



*Chair: Daniela Baldantoni* - Hall 1

#### 09:15 - CS15.1 – Role of dew in desert plants

*Amber J. Hill, Todd Dawson, Oren Shelef, Shimon Rachmilevitch*

#### 09:30 - CS15.2 - Seasonal dynamics of carbon storage in southern South American trees

*Frida Piper*

#### 09:45 - CS15.3 - Imprint of short term memory from circadian oscillators on leaf to ecosystem flux dynamics

*Victor Resco de Dios, Arthur Gessler, J Pedro Ferrio, Josu Alday, Michael Bahn, Jorge del Castillo, Sebastien Devidal, Sonia Garcia-Miñoz, Zachary Kayler, Damien Landais, Paula Martín, Alex Milcu, Clement Piel, Karin Pirhofer-Walzl, Olivier Ravel, Serajis Salekin, David Tissie, Mark Tjoelker, Jordi Voltas, Jacques Roy*

#### 10:00 - CS15.4 - The ecophysiology of photosynthesis in mixotrophic plants

*Alessandro Bellino, Anna Alfani, Daniela Baldantoni*

09:15 - 12:15

### CS16 - CONSERVATION ECOLOGY



*Chairs: Tommaso Russo and Szabolcs Lengyel* - Hall 2

#### 09:15 - CS16.1 - The different meanings of land use and land use intensity for mammalian conservation across the world

*Ester Polaina, Manuela González-Suárez, Tobias Kuemmerle, Eloy Revilla*

#### 09:30 - CS16.2 - Human disturbances and plant responses across elevational gradients of selected Philippine mountain forests: a proposal for biodiversity education using open and distance e-learning

*Inocencio Escoton Buot, Jr*

#### 09:45 - CS16.3 - The industrialization of a frog: determining the factors influencing an endangered amphibian's distribution towards industrialized landscapes

*Jose Valdez*

#### 10:00 - CS16.4 - Relative importance of human disturbance and natural environment for rabbit abundance on motorway verges

*Aimara Planillo, Juan E. Malo*

#### 10:15 - CS16.5 - Rewilding the landscape: effects of large-scale restoration and management of grassland and marsh ecosystems on animals

*Szabolcs Lengyel, Oliver Thomas Mérő, Béla Mester, Márton István Szabolcs, Csaba Szepesváry*

10:30 - 11:00

### COFFEE BREAK / POSTER SESSION



#### 11:00 - CS16.6 - The physical features of the *Sabellaria spinulosa* reef in the northern Gargano Promontory (Adriatic Sea, southern Italy)

*Stefania Nunzia Lisco, Massimo Moretti, Vincenzo Moretti, Frine Cardone, Carlotta Nonnis Marzano, Giuseppe Corriero*

#### 11:15 - CS16.7 - Habitat suitability model for the loggerhead turtle, *Caretta caretta* (L., 1758) along the Apulian coastline

*Manuel Marra, Giovanni Scillitani, Cataldo Pierri, Giuseppe Corriero*

#### 11:30 - CS16.8 - Tracking and analysing fishing effort in space and time: state-of-the-art sources and methods to investigate and control fisheries impacts towards sustainable management

*Tommaso Russo, Antonio Parisi, Lorenzo D'Andrea, Stefano Cataudella*

#### 11:45 - CS16.9 - Ecological consequences of spatial and temporal variation of frequency and intensity of disturbance

*Erika Maria Diletta Porporato, M. Cristina Mangano, Gianluca Sarà*

#### 12:00 - CS16.10 - How small is an ecosystem process?

*Meredith Root-Bernstein*

09:15 - 12:30

## CS17 - ECOSYSTEM SERVICES & SOCIAL BENEFITS



Chair: **Fausto Manes** - Hall 3

**09:15 - CS17.1** - Deductive and inductive approaches to identifying, mapping and valuating of ecosystem services in rural landscape

**Pavol Elias**

**09:30 - CS17.2** - Policy impacts on regulating ecosystem services: looking at the implications of 60 years of landscape change on soil erosion prevention in a Mediterranean silvo-pastoral system

**Carlos António Guerra, Teresa Pinto-Correia**

**09:45 - CS17.3** - The future of some ecosystem services in central European farmlands

**András Báldi, Anikó Kovács-Hostyánszki, Krisztina Bereczki, Gergely Boros, László Somay**

**10:00 - CS17.4** - Air quality improvement by urban and periurban vegetation in the metropolitan area of Rome. An ecosystem service perspective

**Fausto Manes, Andrea Ricci, Federica Marando, Elisabetta Salvatori, Michele Munafò, Lina Fusaro, Carlo Blasi, Luisella Ciancarella**

**10:15 - CS17.5** - Environmental perception and livelihood knowledge in a payment for environmental services project in the Brazilian Atlantic forest.

**Simone Aparecida Vieira**

10:30 - 11:00

## COFFEE BREAK / POSTER SESSION



**11:00 - CS17.6** - A working tool to support natural capital estimation and decision making in marine coastal areas

**Marco Marcelli, Filippo M. Carli, Simone Bonamano, Francesco Manfredi Frattarelli, Emanuele Mancini, Francesco Paladini de Mendoza, Viviana Piermattei**

**11:15 - CS17.7** - Interplay between ecological and socio-economic systems: a systems perspective integrating environmental accounting and ecosystem services assessment

**Giovanni Fulvio Russo, Pierpaolo Franzese, Elvira Buonocore**

**11:30 - CS17.8** - Natural immunity: green space, your microbes, and your health are related

**Lasse Ruokolainen**

**11:45 - CS17.9** - Do tree crops enhance soil C sequestration and C allocation to more stable SOM forms compared with non-tree crops?

**Elisa Niro, Rosaria D'Ascoli, Fabio Marzaioli, Alberto Agnelli, Primo Proietti, Luisa Massaccesi, Luigi Nasini, Luca Regni, Antonietta Fioretto, Simona Castaldi**

**12:00 - CS17.10** - Enlarging the ecosystem services framework

**Richard Gunton, Eline van Asperen, Andrew Basden, David Bookless, George Otieno, Yoseph Araya, David Hanson, Martin Kaonga, Mark Goddard, Arthur Jones, Deepa Senapathi, David Raffaelli, Gareth Jones, Andrew Gosler**

**12:15 - CS17.11** - Development of intelligent GIS tools in support to MSFD: achievements of IRIS-SES Project

**Aristomenis Karageorgis, Paraskevi Drakopoulou, Chara Kyriakidou, Louisa Giannoudi, Nikos Streftaris, Kalliopi Pagou**

## CS10 - POPULATION AND COMMUNITY ECOLOGY, FOOD WEBS NETWORKS AND COMPLEXITY



Chairman: **Frank Berendse, Renato Casagrandi, Lisandro Benedetti - Cecchi** - Hall 6

**09:15 - CS10.14** - Population dynamics of Hokkaido voles leads to Taylor's law

**Takashi Saitoh, Joel E. Cohen**

**09:30 - CS10.15** - When three's a crowd: effects of parasitism on symbiotic organisms

**Sonia Merinero, María Prieto**

**09:45 - CS10.16** - How distinct is the neglected dengue virus circulation among *Aedes aegypti* mosquitoes in natures?

**Taissa Pereira Dos Santos, Keli Antunes Barbosa, Marcia Gonsalves de Castro, Flavia Barreto dos Santos, Ricardo Lourenço de Oliveira**

**10:00 - CS10.17** - Analysis of environmental matching for the prediction of invasion risk

**Robert C. Cope, Joshua V Ross, Talia A Wittmann, Phillip Cassey**

**10:15 - CS10.18** - Intensive agriculture negatively affects the herbivore channel in soil

**Maria Tsiafouli, Emilia Vagiona, Stefanos Sgardelis**

10:30 - 11:00

## COFFEE BREAK / POSTER SESSION



**11:00 - CS10.19** - Responses of nematodes to climate: a trait-based approach

*Maria Tsiafouli, Emilia Vagiona, Stefanos Sgardelis*

**11:15 - CS10.20** - Dispersal limitation of an epiphytic lichen in a managed boreal mixed-wood landscape

*Rocio Belinchón, Juan Traba, Manuel Borja Morales, Douglas W. Morris*

**11:30 - CS10.21** - What are the drivers that shape composition and dynamics of the plant communities around street trees in urban zones?

*Nathalie Machon, Omar Mona*

**11:45 - CS10.22** - Trophic groups and modules: two levels of group detection in food webs

*Benoit Gauzens, Elisa Thebault, Gérard Lacroix, Stéphane Legendre*

**12:00 - CS10.23** - Comparing the conservatism of ecological interactions in plant-pollinator and plant-herbivore networks

*Coline Fontaine*

**12:15 - CS10.24** - Trawling disturbance effects on coexistence processes: evidences from stable isotopes

*Maria Cristina Mangano, Erika M.D. Porporato, Fabio Badalamenti, Nunzia Carla Spanò, Gianluca Sarà*

**12:30 - CS10.25** - Food microbial food web dynamics in coastal waters of the south eastern Black Sea: mixing versus stratification period

*Ulgen Aytan, Ali Muzaffer Feyzioglu, Ertugrul Agirbas, Andre Valente*

**12:45 - CS10.26** - Comparison of the trophic ecology of two mammals: the wild boar *Sus scrofa* L. 1758 and the porcupine *Hystrix cristata* L. 1758 in the northern slope of Djurdjura (north of Algeria)

*Mansour Amroun, Ania Ben Ammar, Kahina Mallil, Katia Selmouni*

**09:15 - 13:15**

**S28 - NETWORKS OF MARINE PROTECTED AREAS IN THE MEDITERRANEAN AND THE BLACK SEAS: THE COCONET PROJECT**



*Convener: Ferdinando Boero - Hall 4*

**09:15 - S28.1** - MPA Networks in the Mediterranean and Black Seas and the feasibility of Offshore Wind Farms

*Ferdinando Boero*

**09:45 - S28.2** - Socio-economic aspects of networks of MPAs

*Paul Goriup*

**10:00 - S28.3** - Threats to environmental integrity

*Enrique Macpherson*

**10:15 - S28.4** - Connectivity as the key for networks of MPAs

*Lorenzo Zane*

**COFFEE BREAK / POSTER SESSION**



**11:00 - S28.5** - CoCoNet Project: the role of the zooplankton in the MPAs connectivity of the South Adriatic Sea

*Guglielmo Letterio, Granata A., Belmonte G., Hajderi E.*

**11:15 - S28.6** - Offshore Wind Farms and Marine Protected Areas: integration in the context of the FP7 CoCoNet Project

*Takvor Soukissian, Sofia Reizopoulou, Paraskevi Drakopoulou, Panagiotis Axaopoulos, Flora Karathanasi, Laura Bray, Chara Kyriakidou, Evangelos Papathanassiou, Anastasios Papadopoulos, Evangelos Voukouvalas*

**11:30 - S28.7** - Measuring community connectivity in the Adriatic and Ionian Seas

*Paco Melià, Marcello Schiavina, Marisa Rossetto, Simonetta Fraschetti, Marino Gatto, Renato Casagrandi*

**11:45 - S28.8** - Beta-diversity, connectivity, and resilience potential in shallow subtidal assemblage

*Simonetta Fraschetti, Stanislao Bevilacqua, Giuseppe Guarnieri, Vesna Macic, Ilaria Mura*

**12:00 - S28.9** - Heavy metal (Cu, Ni, Cd, Cr, Pb) accumulation in the organs of *Scorpaena porcus* Linnaeus, 1758 from the Romanian Black Sea

*Dragos Micu, Mircea Nicoara, Gabriel Plavan, Stefan-Adrian Strungaru*

**12:15 - S28.10** - Geodatabase and WebGIS for data management and knowledge integration in the framework of the CoCoNet Project (Towards COast to COast NETworks of marine protected areas coupled with Sea based Marine energy Potential)

*Federica Foglini, Valentina Grande*

09:15 - 13:15

S29 - STABLE ISOTOPES IN ECOLOGY: CROSSING BOUNDARIES ACROSS DISCIPLINES AND SCALES



Conveners: *Juan Pedro Ferrio Díaz, Arthur Gessler, Cristina Maguas, Sara Palacio* - Hall 5

09:15 - Opening remarks  
*Sara Palacio*

09:30 - S29.1 - Stable carbon isotope labeling: a versatile tool in research on plant allocation

*Henrik Hartmann, Fischer S., Zhang H., Pereyra G., Forkelova L., Huang J. Trumbore S.*

10:00 - S29.2 - C and N allocation on traditional and modern wheat varieties under preindustrial, current and future [CO<sub>2</sub>] using stable isotopes

*Salvador Aljazairi, Salvador Nogués*

10:15 - S28.3 - Effects of experimental summer drought on the carbon allocation of two dwarf shrub species in the Central Alps

*Alba Anadón-Rosell, Roland Hasibeder, Johannes Ingrisch, Alexander König, Sara Palacio, Stefan Mayr, Josep Maria Ninot, Salvador Nogués, Michael Bahn*

10:30 - 11:00

COFFEE BREAK / POSTER SESSION



11:00 - S29.4 - Stable isotope ratios of hydrogen separate mammals of aquatic and terrestrial food webs

*Christian C. Voigt*

11:30 - S29.5 - Unravelling water sources in gypsum plant communities through the use of stable isotopes

*Sara Palacio, Gabriel Montserrat-Martí, José Azorín, Juan Pedro Ferrio*

11:45 - S29.6 - Is uncoupling between soil and xylem water isotopic signatures actually occurring?

*Paula Martín-Gómez, Todd E. Dawson, Juan Pedro Ferrio.*

12:00 - S29.7 - Trade-offs among life functions constrain adaptive variation in *Pinus halepensis* mill.: a perspective from stable isotopes

*Juan Pedro Ferrio, Jordi Voltas, Ester Sin, Luis Serrano, Ricardo Alia, Isabel Rodríguez, José Climent,*

12:15 - S29.8 - Stable isotopes: A tool for understanding coastal dune forests' functioning under scenarios of global change

*Cristina Mágua*

12:30 - S29.9 - Intra-annual tree ring δ<sup>13</sup>C across time: tracking the responses of *Q. petraea* to climatic variation

*Elena Granda, Nicolas Delpierre, Stéphane Bazot, Chantal Fresneau, Anaïs Boura, Georgia Faccioni, Eric Dufrêne, Daniel Berveiller, Alice Michelot, Gaëlle Vincent, Claire Damesin*

12:45 - S29.10 - Can we use d<sup>15</sup>N in lichens as an indicator of nitrogen pollution and a surrogate of nitrogen atmospheric isotopic composition?

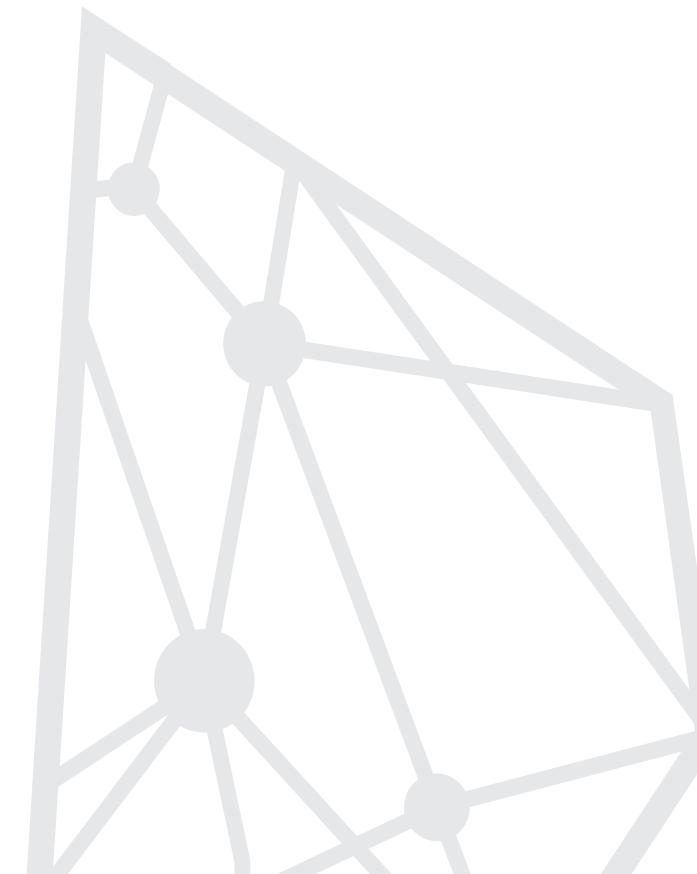
*Silvana Munzi, Cristina Branquinho, Cristina Cruz, Cristina Mágua, Ian Leith, Lucy Sheppard*

RT04 - ROMA E LE SUE ACQUE. VERSO UNA PROGETTUALITÀ



Conveners: *Alessandro Coppola, Edoardo Papa* - Hall 1

CLOSING CEREMONY - Hall 1





# POSTERS

## PS01 - ECOTOXICOLOGY

**PS01.01** - Does perfluorooctanoic acid represent potential risk to fish fecundity?

*Luisa Giari, Bahram Sayyaf Dezfuli, Giuseppe Castaldelli, Elisa Anna Fano, Fabio Vincenzi, Cristiana Guerranti, John Charles Rotondo, Fernanda Martini*

**PS01.02** - Effects of nano-TiO<sub>2</sub> and vancomycin on seed germination

*Giusy Lofrano, Daniela Baldantoni, Giovanni Libralato, Alessandro Bellino, Ilaria Lodato, Maurizio Carotenuto*

**PS01.03** - Analyse of floristic composition of abandoned Cu-dumps field

Piesky (Starohorské vrchy Mts, Slovakia)

*Ingrid Turisová, Tomáš Štrba, Peter Sabo, Peter András, Štefan Aschenbrenner, Pavel Širka*

**PS01.04** - Comparison of bioaccumulation properties in *Pinus* sp. and *Quercus* sp. at the selected European Cu-deposits

*Peter András, Ingrid Turisová, João Matos, Jana Dadová, Peter András Jr., Jiří Kupka, Giuseppe Buccheri*

**PS01.05** - Effects of ionic, micro- and nano-sized iron on *Lepidium sativum* as a reference biological model

*Annamaria Volpi Ghirardini, Giovanni Libralato, Andrea Costa Devoti, Diego Minetto*

**PS01.06** - Nickel toxicity: Common Reed response to oxidative stress

*Khaled Bouchama*

**PS01.07** - Combination effects of nano-TiO<sub>2</sub> and water accommodated fraction of crude oil (WAF) on biotransformation in the liver of European sea bass (*Dicentrarchus labrax*)

*Maria Luisa Vannuccini, Camilla Della Torre, Elena Bocci, Elisa Bergami, Gloria Sampoli, Michael J. Leaver, Ilaria Corsi*

**PS01.08** - Bioavailability and bioaccessibility of lead in sediments from coastal and inland wetlands with different hunting activity

*Stefania Ancora, Stefania Fortino, Monica Martinez-Haro, Denise Porretta, Nicola Bianchi, Rafael Mateo, Claudio Leonzio*

## PS02 - GLOBAL CHANGE ECOLOGY

**PS02.1** - Strong resilience of soil respiration components to drought-induced die-off resulting in forest secondary succession

*Josep Barba, Jorge Curiel Yuste, Rafael Poyatos, Ivan A. Janssens, Francisco Lloret*

**PS02.2** - Climate change affects biocrust ability to modulate soil moisture dynamics

*Angela Lafuente, Miguel Berdugo, Fernando Tomas Maestre*

**PS02.03** - Effects of climate warming on forest soil mesofauna species richness

*Janis Ventins, Ugis Kagainis, Ineta Salmane, Edite Jucevica, Viesturs Melecis*

**PS02.04** - Fertilization response to ocean acidification in the Antarctic sea urchin *Sterechinus neumayeri*

*Ombretta Dell'Acqua, Danilo Pecorino, Valentina Asnaghi, Mariachiara Chiantere*

**PS02.05** - Vulnerability of amphibians and birds to climate change

*Francesca Maura Cassola, Michela Pacifici, Carlo Rondinini*

**PS02.06** - An analysis of climate change impacts in the Gulf of Thailand

*Thamasak Yeemin, Makamas Sutthacheep, Wicha Suebpala*

**PS02.07** - Vulnerability of *Cymodocea nodosa* to increased sediment burial and nutrient availability: implications in a changing climate

*Claudio Lardicci, Elena Balestri*

**PS02.08** - Trophic niche of a dominant benthic predator, *Odontaster validus* (Asteroidea) associated to sea-ice cover at Tethys Bay (Ross Sea, Antarctica)

*Marco Angeluzzi, Edoardo Calizza, Pasquale Carlino, Maria Letizia Costantini, Loreto Rossi*

**PS02.09** - C and N allocation study with stable isotopes in cereals at past, present and future [CO<sub>2</sub>] modulated by nitrogen availability

*Salvador Aljazairi, Claudia Arias, Salvador Nogués*

**PS02.10** - *Cymodocea nodosa* response to simulated CO<sub>2</sub>-driven ocean acidification: a first insight from global transcriptome profiling  
*Miriam Ruocco, Francesco Musacchia, Lazaro Marin-Guirao, Remo Sanges, Irene Olivé, Monya M. Costa, Isabel Barrote, Rui Santos, Gabriele Procaccini, João Silva*

**PS02.11** - Evolution of peat under the black alder forest of Demnet Errihane (El Kala National Park - north- east of Algeria)  
*Samir Chekchaki, Djalil Zaafour, Mohamed Benslama*

**PS02.12** - Decomposition of organic matter in a climate change scenario: investigating potential interactions between decomposition forcing factors  
*Franca Sangiorgio, Daniela Santagata, Alberto Basset*

**PS02.13** - Human pressures predict species' geographic range size better than biological traits  
*Moreno Di Marco, Luca Santini*

**PS02.14** - Ecophysiological responses of coastal forests to groundwater changes: comparing functional groups and climatic regions  
*Cristina Antunes, Ângela Pereira, Andreia Anjos, Simone Vieira, Maria Cruz Diaz Barradas, Maria Zunzunegui, Maria João Pereira, Cristina Mágua*

### PS03 - AQUATIC ECOLOGY

**PS03.1** - The European S&T Med project: linking marine ecology, technology and economics in the cross-frontier promotion of sustainable tourism  
*Eugenio Rastelli, Raffaella Casotti, Augusto Passarelli, Nino Plastina, Vincenzo Saggioro*

**PS03.2** - Bioaccumulation of heavy metals in the muscle tissue of two economically important fish species from two impoundments of the Olifants River system  
*Abraham Addo-Bediako, Antionette Jooste, Sean Marr*

**PS03.3** - Great Cormorant predation on an endemic and threatened fish, the Cisalpine Pike: a conservation conflict  
*Stefano Fenoglio, Giovanni Boano, Giovanni Battista Delmastro, Paolo Lo Conte*

**PS03.4** - Seasonal distribution of microphytobenthos in the oligotrophic continental shelf of Heraklion bay (Crete, eastern Mediterranean)  
*Panayota Koulouri, Manolis Mandalakis, Costas Dounas*

**PS03.5** - Five years monitoring of benthic harmful dinoflagellates *Coolia monotis*, *Ostreopsis cf. ovata* and *Prorocentrum lima*  
*Valentina Giussani, Valentina Asnagi, Mariachiara Chiantore*

**PS03.6** - Validation of a fish-based index for Italian transitional water bodies  
*Matteo Zucchetta, Luca Scapin, Nicola Bettoso, Lisa Faresi, Bruno Floris, Gianluca Solinas, Cristiana Tola Malasa, Nicola Ungaro, Camilla Antonini, Barbara Catalano, Gianluca Franceschini, Marina Penna, Benedetta Trabucco, Annamaria Cicero, Piero Franzoi*

**PS03.7** - Challenges and scientific cooperation for the study of Mediterranean coralligenous habitats: CIGESMED European program  
*Romain David, Christos Arvanitidis, Melih Ertan Çınar, Stéphane Sartoretto, Drosos Koutsoubas, Anne Chenail, Giulia Gatti, Jean-Pierre Feral*

**PS03.8** - *Limnoria quadripunctata* (Isopoda: Limnoriidae) in the Adriatic  
*Davide Tagliapietra, Irene Guarneri, Erica Keppel, Andrea Bergamasco, Sandra Donnici, Luigi Tosi, Marco Sigovini*

**PS03.9** - The susceptibility of corals to thermal stress by analyzing Hsp60 expression  
*Paolo Galli, Davide Seveso, Simone Montano, Ivan Orlandi, Marina Vai*

**PS03.10** - Eutrophication status of the Black Sea (Turkey) using BEAST  
*Mustafa Asım Mantıkçı, Colpan Polat Beken, Hakan Atabay, Ibrahim Tan, Ahsen Yuksek*

**PS03.11** - Using fish community to identify success criteria for seagrass habitat restoration  
*Luca Scapin, Matteo Zucchetta, Chiara Facca, Adriano Sfriso, Piero Franzoi*

**PS03.12** - Plant-herbivore interactions in a tropical mangrove ecosystem  
*Judith C Klein, Vincent Peres, Thi Thuy Duong, Dinh Tu Nguyen, Thi Xuan Phuong Nguyen, Vu Thanh Nguyen*

**PS03.13** - Spatio-temporal dynamics of the alien species *Rhithropanopeus harrisii* (Crustacea: Panopeidae) and *Xenostrobus securis* (Mollusca: Mytilidae) in Tuscan brackish environments  
*Joachim Langeneck, Luca Rindi, Michele Barbieri, Fabio Bulleri, Ferruccio Maltagliati, Alberto Castelli*

**PS03.14** - Why, how and to what extent restoration of Lower Danube Land-Waterscape (LDLW) is required?

**PS03.15** - Tracking the past: from shape and surface recent evolution to archaeological inference of ecosystem services of coastal lagoons to early human settlements

*Giovanna Occhiputo, Marcello Guaitoli, Silvia Giulio, Alberto Basset*

**PS03.16** - Assessment of water quality of Lagos lagoon with respect to protection of aquatic life

*Lanre Ogunyebi, Anthony Abah*

## PS05 - BIODIVERSITY AND ECOSYSTEMS

**PS05.1** - LIFE to ad(d)mire; mire restorations in Sweden

*Lisa Tenning*

**PS05.2** - Divergent diversity patterns of species richness in bryophytes and vascular plants across Europe

*Rubén G. Mateo, Olivier Broennimann, Signe Normand, Blaise Petitpierre, Jens-C. Svenning, Andrés Baselga, Miguel B. Araújo, Miska Luoto, Federico Fernández, Virgilio Gómez-Rubio, Benjamin Laenen, Aurélie Désamoré, Jesús Muñoz, Antoine Guisan, Alain Vanderpoorten*

**PS05.3** - Fish community composition of the Po river Delta lagoons in relation to environmental features and human exploitation

*Mattia Lanzoni, Giuseppe Castaldelli, Vasileios Aschonitis, Valentina Mattioli, Matteo Merighi, Elisa Anna Fano*

**PS05.4** - Responses of soft-bottom bacterial diversity and processes to oxygen depletion and recovery: insights from manipulation experiments in the Venice lagoon

*Lucia Bongiorni, Daniele Longhi, Mariachiara Naldi, Daniele Nizzoli, Alberto Pallavicini, Pierluigi Viaroli*

**PS05.5** - Aromatic hydrocarbon utilization ability of *Chromohalobacter* sp.

*Kiymet Guven, Sevim Feyza Erdogan, Safiye Elif Korcan, Muhsin Konuk, Mehmet Burcin Mutlu*

**PS05.6** - Biosorption of mercury by *Mucor* sp. isolated from ceramic waste

*Alaettin Guven, Elif Hasgul, Semra Malkoc, Kiymet Guven*

**PS05.7** - Structural complexity and environmental gradients affect meiofaunal distribution and diversity associated to vermetid reefs

*Francesca Ape, Emma Capruzzì, Renato Chemello, Gianluca Sarà, Michele Gristina, Simone Mirtò*

**PS05.8** - Soil-vegetation relationship in the watersheds of the Tonga and Oubeira lakes (National Park of El Kala, Algeria)

*Mohamed Djamil Zaafour, Samir Chekchaki, Mohamed Benslama*

**PS05.9** - Plant and arthropod communities in *Myriophyllum aquaticum* (Vell.) Verdc. invaded and uninvaded waters in a Mediterranean wetland (Tuscany, central Italy)

*Lorenzo Lastrucci, Lorenzo Lazzaro, Lorella Dell'Olmo, Bruno Foggi, Fabio Cianferoni*

## PS06 - FOREST ECOLOGY AND DYNAMICS

**PS06.1** - Changes in soil chemistry and soil microbial biomass after shrub encroachment in the Spanish Pyrenees

*Sara Palacio, Melchor Maestro, Blanca Santamaría, Juan José Jiménez, Elena Lahoz, José Azorín, Gabriel Montserrat-Martí*

**PS06.2** - Interrelations of *Pinus sylvestris* L. and *Lophodermium pinastri* Schard. potential ranges in central Siberia in a warming climate

*Elena I. Parfenova, Nadezhda M. Tchebakova, Nina A. Kouzmina, Sergei R. Kouzmin, Vera A. Senasheva*

**PS06.3** - Influence of plant litters on soil bacterial and fungal growth in Mediterranean forests

*Felicia Grossi, Felicia Grossi, Erland Bååth, Flavia De Nicola*

**PS06.4** - Contrasting ecophysiological strategies related to drought: the case of a mixed stand of *Pinus sylvestris* – *Quercus subpyrenaica*

*Paula Martín-Gómez, Mònica Aguilera, Jesús Pemán, Eustaquio Gil-Pelegrín, Juan Pedro Ferrio*

**PS06.5** - Thermal imaging of forest canopy temperatures: relationships with biological and biophysical drivers and ecosystem fluxes

*Christopher Still, Youngil Kim, Beverly Law, Chad Hanson, Hyojung Kwon, Ken Bible, Mark Schulze, Matteo Detto, Stephanie Pau*

## PS07 - EVOLUTIONARY ECOLOGY

**PS07.1** - Flower colour polymorphism in *Silene littorea*: the white-petal morph shows anthocyanin and other flavonoids in the rest of the plant

*Jose Carlos Del Valle, Ines Casimiro-Soriguer, Maria Luisa Bude, Eduardo Narbona*

**PS07.2** - Reproductive barriers in sympatry: selfing as a way to avoid competition for pollinators between two moth-pollinated species

*M. Luisa Bude, José Carlos del Valle, Eduardo Narbona*

## **PS08 - AGRICULTURAL ECOLOGY**

**PS08.1** - Dung beetles (Coleoptera: Scarabaeoidea) drive ecosystem functioning in Alpine grasslands

*Beatrice Nervo, Enrico Caprio, Luisella Celi, Giampiero Lombardi, Michele Lonati, Gloria Falsone, Gabriele Iussig, Claudia Palestini, Daniel Said-Pullincino, Antonio Rolando*

**PS08.2** - Ground-dwelling beetles in maize agroecosystems of northern Italy: their potential as biodiversity indicators

*Francesco Lami, Antonio Masetti, Daniele Sommaggio, Giovanni Burgio*

**PS08.3** - Biological soil quality indicators and sustainable viticulture: a case study in the Verdicchio terroir of Matelica (Italy)

*Antonietta La Terza, Santosh Kumar, Daizy Bharti, Silvia Marinsalti, Emilio Insom*

**PS08.4** - Locating nitrate vulnerability in mountain catchments

*Roberta Bottarin, Uta Schirpke, Ulrike Tappeiner*

**PS08.5** - Structure of the soil microbial community and soil enzymatic activity as influenced by decomposing spearmint leaves

*Nikos Monokrousos, Antonis Mazis, John M. Hally, Despoina Vokou*

**PS08.6** - Do vineyards contribute to conserve plant species of arid grasslands?

*Juri Nascimbene, Lorenzo Marini, Diego Ivan, Valentina Casagrande, Michela Zottini*

**PS08.7** - The role of farming practices in shaping communities of earthworms in organic rainfed arable fields

*Paola Baldivieso-Freitas, Jose M. Blanco-Moreno, Alejandro Pérez-Ferrer, F. Xavier Sans-Serra*

**PS08.8** - Innate and learnt preferences of an anthocorid predator towards maize damaged plants by herbivores with different feeding strategies

*Agnès Ardanuy, Ramon Albajes, Ted C.J. Turlings*

**PS08.9** - Possible effects of phenological mismatch between flowers and pollinators in apple orchards

*Ádám Körösi, Anikó Kovács-Hostyánszki, László Somay, Rita Földesi, Miklós Sárosbataki, András Báldi*

**PS08.10** - An integrated approach to achieve environmentally sustainable control of the new emerging pest *Drosophila suzukii* in cherry orchards of Emilia-Romagna

*Stefano Civolani, Stefano Cassanelli, Maria Luisa Dindo, Elisa Anna Fano, Santolo Francati, Maria Gullo, Stefano Maini, Lara Maistrello, Elisa Marchetti, Stefano Lugli, Giacomo Vaccari, Stefano Caruso*

**PS08.11** - Long- and short-term effects of olive pomace amendment on soil quality

*Elisa Niro, Michele Innangi, Teresa Bertolini, Luigi Nasini, Primo Proietti, Alberto Agnelli, Luca Regni, Luisa Massaccesi, Simona Castaldi, Antonietta Fioretto, Rosaria D'Ascoli*

**PS08.12** - Contribution to the study of the influence of cultural practices on structural stability and organic soil potential of the plain of Annaba, Algeria

*Atika Daroui*

**PS08.13** - Chemical and organoleptic characteristics of tomato puree enriched with lyophilized tomato pomace

*Valeria Romanucci, Costantina Barbarisi, Giulia Maisto, Anna De Marco, Giovanni Di Fabio, Armando Zarrelli*

**PS08.14** - Differentiated metal accumulation in *Helianthus annuus* L. and *Sorghum bicolor* L. grown in the field under Mediterranean climate condition

*Francesco Esposito, Luca Vitale, Valeria Memoli, Carmen Arena, Anna De Marco, Anna Tedeschi, Giulia Maisto, Daniela Famulari, Vincenzo Magliulo*

**PS08.15** - Relationships among soil properties, functional leaf traits, fruits and oil quality in different cultivars of *Olea europaea* L.

*Costantina Barbarisi, Carmen Arena, Maria Grazia Volpe, Anna De Marco*

## **PS09 - ECOLOGICAL MODELLING & BODY SIZES ALLOMETRIES AND PATTERNS**

**PS09.1** - Scaling whole tree water use in young individuals of Japanese cedar in relation to above- and belowground respiration, size and growth rate

*Juan Pedro Ferrio, Taku Aizawa, Hiromu Hoshido, Mofei Wang, Shigeta Mori*

**PS09.2** - Cross-community scaling of macro-invertebrate guilds: decoding deviation from metabolic expectation into potential mechanism

*Vojšava Gjoni*

**PS09.3** - Country-based models for predicting tropical deforestation in the 21<sup>st</sup> century

*Luca Parenti, Carlo Rondinini, Moreno Di Marco*

**PS09.4** - Soil factors improve predictions of plant species distribution in mountain environment

*Aline Buri, Carmen Cianfrani, Jean-Nicolas Predarvand, Antoine Guisan*

## PS10 - POPULATION AND COMMUNITY ECOLOGY & FOOD WEBS, NETWORKS & COMPLEXITY

**PS10.1** - The seasonal change in Antarctic sea-ice cover influences the structure of invertebrate food web at Terra Nova Bay (Ross Sea)

*Edoardo Calizza, Valeria Avramo, Pasquale Carlino, Maria Letizia Costantini, Loreto Rossi*

**PS10.2** - *Liza ramada* (Risso 1826): how many kinds of diet? Trophic niches of mullet fish in different environmental contexts using stable isotope approach

*Pasquale Carlino, Flavia Bentivoglio, Gianluca Fascioli, Davide Cicala, Giulio Careddu, Edoardo Calizza, Maria Letizia Costantini, Loreto Rossi*

**PS10.3** - Intraspecific trait changes promote species coexistence

*Ursula Gaedke*

**PS10.4** - Can we use niche models of indicator species to predict the distribution of endangered communities?

*Rosa M. Chefaoui, Sergio Chozas, Otilia Correia, Ana M.C. Santos, Joaquín Hortal*

**PS10.5** - The reproductive cycle of the thermophilous echinoid *Arbacia lixula* (Linneo, 1815)

*Paola Gianguzza*

**PS10.6** - Settlement and post-settlement determinants of *Paracentrotus lividus* sea urchin recruitment

*Giulia Ceccherelli, Simone Farina, Stefania Pinna, Ivan Guala, Davide Agnetta, Pierre Antoine Ariotti, Francesco Mura, Silvia Oliva*

**PS10.7** - Ecological dominance by tall perennial herb (*Sambucus ebulus* L.) in productive habitats

*Pavol Elias*

## PS11 - MACROECOLOGY & SCALING

**PS11.1** - Seasonal trends and spatial pattern of bryophytes in Mediterranean temporary ponds

*Giorgia Filippino, Annalena Cogoni, Michela Marignani*

## CS12 - BIOGEOGRAPHY AND LANDSCAPE ECOLOGY

**PS12.1** - Analysis of spatial distribution drivers affecting endemic plants from Mediterranean islands

*Giuseppe Bonanno, Vincenzo Veneziano, Pietro Pavone*

**PS12.2** - Analyzing the effects of local people on landscape change and transformation in Ahir Mountain, Turkey

*Hakan Doygun*

**PS12.3** - Landscape characterization and urban context of urban parks in Montpellier city, France

*Vittoria Milano, Jerome Cortet, Giulia Maisto, Sandro Strumia, Antonio Croce, Cyril Bernard, Florence Dubs*

**PS12.4** - Tracing the evolutionary history of the European mole by coupling mtDNA phylogeography and species distribution modelling

*Roberto Feuda, Anna A. Bannikova, Elena D. Zemlemerova, Mirko Di Febbraro, Anna Loy, Rainer Hutterer, Gaetano Aloise, Alexander E. Zykov, Flavia Annesi, Paolo Colangelo*

**PS12.5** - Follow the beetle: a long history of Mediterranean island colonization

*Simone Fattorini, Giovanni Strona*

## PS13 - BIOGEOCHEMISTRY IN TERRESTRIAL & AQUATIC ECOSYSTEM

**PS13.1** - Trace gases exchange at ecosystem level in an urban forest in Naples

*Gabriele Guidolotti, Raffaella Esposito, Michele Mattioni, Emanuele Palozzi, Carlo Calfapietra*

**PS13.2** - Soil effects of afforested tree species: trace elements stabilization and carbon sequestration

*Teodoro Marañón, Carmen Navarro-Fernández, María-Teresa Domínguez, Paula Madejón, José-Manuel Murillo*

**PS13.3** - Contribution of representative ground covers of semiarid ecosystems to soil CO<sub>2</sub> efflux

*Sonia Chamizo, Yolanda Cantón, Enrique P. Sánchez-Cañete, Emilio Rodríguez-Caballero, Francisco Domingo*

**PS13.4** - The effect of non rainfall water inputs on biocrusts activity

*Yolanda Canton Castilla, Sonia Chamizo, Emilio Rodriguez-Caballero*

## PS14 - ECOLOGY & SOCIETY

**PS14.1** - Phoenix flagships: conservation values and guanaco reintroduction in an anthropogenic landscape  
*Adrien Lindon, Meredith Root-Bernstein*

**PS14.2** - Butterflies as ambassadors for biodiversity knowledge transfer  
*Karin Ulbrich, Elisabeth Kühn, Oliver Schweiger, Stefan Klotz, Josef Settele*

**PS14.3** - Raising public awareness about sacred forests using the bio-cultural values of ancient trees  
*Despoina Vokou, Kalliopi Stara, Paraskevi Mani, John M. Halley*

**PS14.4** - Emerging integrated SPSI for sustainable governance and management across Romanian watersheds  
*Magdalena Maria Bucur, Nicoleta Geamana, Angheluta Vadineanu*

## PS15 - PHYSIOLOGICAL ECOLOGY

**PS15.1** - Algal bioremediation of aquaculture wastewater: a study on the capability of *Chaetomorpha linum* and *Cladophora prolifera* in removing nutrient surplus  
*Francesca Aquilino, Annalisa Paradiso, Pierluigi Carbonara, Giuseppe Corriero, Maria Concetta de Pinto*

## PS16 - CONSERVATION ECOLOGY

**PS16.1** - Ecology and conservation of threatened lichens in the Iberian peninsula: from individuals to populations  
*Sonia Merinero, Gregorio Aragón, Isabel Martínez*

**PS16.2** - Isotopic variability of potential trophic resources of Apennine brown bear (*Ursus arctosmarsicanus*) in Abruzzo, Lazio and Molise national park  
*Stella Mondovì, Edoardo Calizza, Pasquale Carlino, Paolo Ciucci, Maria Letizia Costantini, Loreto Rossi*

**PS16.3** - Exploring forecasting tools: correlative vs mechanistic approaches  
*Maria Cristina Mangano, Giovanna Ficano, Simone Mirto, Gianluca Sarà*

**PS16.4** - Life barbie - conservation and management of *Barbus meridionalis* and *Barbus plebejus* in the Emilian tributaries of Po River  
*Federica Piccoli, Sonia Anelli, Marco Bartoli, Christian Farioli, Enrica Montanini, Francesca Moretti, Tommaso Pagliani, Armando Piccinini, Willy Reggioni, Daniela Sciarra, Andrea Voccia, Rossano Bolpagni, Francesco Nonnis Marzano*

**PS16.5** - Protected area network and conservation efforts to the threatened amphibians in the Brazilian Atlantic forest  
*Felipe Siqueira Campos, Gustavo Llorente, Leire Rincon, Ricardo Lourenço-de-Moraes, Mirco Solé*

**PS16.6** - Building up a network for monitoring conservation status of threatened species  
*Iker Pardo, Pablo Tejero, Daniel Gómez, David Guzmán, María B. García*

**PS16.7** - Conservation of biodiversity in ferruginous campo rupestre located at Serra do Rola Moça State Park, Minas Gerais – Brazil  
*Alessandra Furtado Fernandes*

**PS16.8** - Fishing impact at the interface between cold-water coral area and exploited area in the northern Ionian sea (Mediterranean sea)  
*Letizia Sion, Crescenza Calculli, Francesca Capezzuto, Roberto Carlucci, Gian Franco D'onghia, Porzia Maiorano, Alessio Pollice, Tommaso Russo, Angelo Tursi*

**PS16.9** - Multi-scale GIS and statistical analysis of Natura 2000 network: highlighting current vulnerabilities and peculiarities to improve biodiversity conservation in Mediterranean regions.  
*Silvia Giulio, Alberto Bassetti, Maurizio Pinna, Barbara Loconsole, Sotiris Kan-drelis, Markos Avlonitis*

## PS17 - ECOSYSTEM SERVICES & SOCIAL BENEFITS

**PS17.1** - Evaluating the impact of recent land use changes on natural capital and natural ecosystem services in Italy  
*Mattias Gaglio, Vassilis George Aschonitis, Giuseppe Castaldelli, Elisa Anna Fano*

**PS17.2** - Biofouling as a provider of organic matter cleaning services: an aquaculture case study in Sicily  
*Alessandro Rinaldi, Valeria Montalto, Simone Mirto, Gianluca Sarà*

**PS17.3** - Estimation of Hydrological Ecosystem Service in agro-ecosystem for Circeo National Park  
*Rossana Cotroneo, Stefano Tersigni, Donatella Vignani, Paola Giordano, Gina Galante, Fausto Manes*

**PS17.4** - The effect of biocrust on ecosystem services, and their importance for drylands management  
*Emilio Rodriguez Caballero, Sonia Chamizo, Antonio Castro, Cristina Quintas-Soriano, Marina García-Llorente, Yolanda Canton, Bettina Weber*

## PS18 - ECOLOGICAL NICHE & INTERACTIONS

PS18.1 - Genetic diversity and ecological niche modelling of two epiphytic lichens with contrasting dispersal modes

*Rocío Belinchón, Rebecca Yahr, Chris J. Ellis*

PS18.2 - Feeding ecology of Italian crested newt *Triturus carnifex* (Laurenti, 1768) in the central Apennines (Italy): combining stable isotopes and stomach contents analysis

*Giulio Careddu, Nicolò Carlini, Antonio Romano, Flavia Bentivoglio, Edoardo Calizza, Pasquale Carlino, Maria Letizia Costantini, Loreto Rossi*

## PS19 - ECOLOGICAL RESILIENCE & SUSTAINABILITY

PS19.1- Substrates quality after short and long-time by compost application

*Valeria Memoli*

PS19.2 - Agriculture and climate changes in EU countries: resilience's measure

*Rossana Cotroneo, Massimo Greco, Daniela Fusco, Paola Giordano, Valerio Moretti*

PS19.3 - Indicators for assessing resilience of forest ecosystem services: a review based on the DPSIR framework

*Ana Sofia Vaz, Carlos Vila-Viçosa, Joana Raquel Vicente, A. Jesus Muñoz-Pajares, João Pradinho Honrado*

## PS20 - EDUCATION TO SUSTAINABILITY

PS20.1 - Satoyama conservation initiatives in the Philippines: the case of the Open Online Course of the University of the Philippines Open University

*Inocencio Jr Escoton Buot*

PS20.2 - Why and how higher education system should react to major challenges arising from transdisciplinary science of sustainability?

*Angheluta Vadineanu*

PS20.3 - Digital Diorama project: initial results from school testing

*Annastella Gambini, Antonella Pezzotti, Alfredo Broglia*

## PS21 - HIDDEN & DARK BIODIVERSITY - FROM MOLECULES TO MACRO ECOLOGY

PS21.1 - The evolutionary and ecological history of Talitrid amphipods (Crustacea, Amphipoda) of the Mediterranean-east Atlantic area.

*Elvira De Mattheis*

## PS22 - MOLECULAR ECOLOGY

PS22.1 - Antioxidant and stress-related genes in the seagrass *Posidonia oceanica* in the vicinity of natural CO<sub>2</sub> vents at different nutrient conditions

*Chiara Lauritano, Fabio Bulleri, Chiara Ravaglioli, Laura Tamburello, Maria Cristina Buia, Gabriele Procaccini*

PS22.2 - Ecological and evolutionary consequences of a colonization event: the case study of the mosquitoes *Aedes mariae* and *Ae. zammitii*

*Valentina Mastrandri, Daniele Porretta, Giuseppe Nascetti, Sandra Urbanel- li*

PS22.3 - Establishment of networks of MPAs: incorporating information on genetic connectivity of benthic ecosystem engineers in pilot projects

*Marlene Jahnke, Emanuela Dattolo, Gabriele Procaccini*

## PS23 - PARASITES, PATHOGENS & WILDLIFE DISEASE

PS23.1 - Ecological processes drive the epidemiology of environmental pathogens

*Lasse Ruokolainen*

## PS24 - PERTURBATION ECOLOGY & ECOLOGICAL INDICATORS

PS24.1 - Using water quality standards and macrobenthic populations to develop a prioritization system for restoration plans of the lotic systems of northern Italy

*Fabio Vincenzi, Vasileios Aschonitis, Giuseppe Castaldelli, Elisa Anna Fano*

PS24.2 - Effect of Solofrana River flooding on soil microbial community

*Flora Angela Rutigliano, Rossana Marzaioli, Walter Lamberti, Marco Trifuggi*



## PS25 - TROPICAL ECOLOGY

PS25.1 - Spatial patterns of soil ecosystem engineers' functional domains determine ecosystem function

*Juan J. Jiménez, Thibaud Decaëns, Jean-Pierre Rossi, Patrick Lavelle*

PS25.2 - Global change and primary productivity in tropical forest

*Simone Aparecida Vieira, Marcos Augusto Scaranello, Luis Carlos Quimbayo Guzman, Cinthia Aparecida da Silva, Yvonne Vanessa Bakker, Carlos Alfredo Joly*

## PS26 - URBAN RESILIENCE & SUSTAINABILITY

PS26.1 - The ecological status and heavy metal pollution in small tributaries of Tiber river in the urban area of Rome (Italy)

*Filippo Chiudioni, Teresa Trabace, Achille Palma, Spartaco Di Gennaro, Fausto Manes, Stefania Marcheggiani, Camilla Puccinelli, Roberto Giuseppetti, Laura Mancini*

## PS27 - ANY OTHER TOPIC

PS27.1 - Innovative feeds and systems for sea urchin farming

*Maria Paola Ferranti, Lorenzo Cannella, Danilo Pecorino, Gina de la Fuente Mancebo, Valentina Asnaghi, Doriane Sicurelli, Mariachiara Chiantore*

PS27.2 - Tracking the way of phenanthrene uptake in mosses

*Valeria Spagnuolo, Flavia De Nicola, Diana Marinaro, Francesca Figlioli, Rosa Carotenuto, Simonetta Giordano*

PS27.3 - Spatial distribution and contamination levels in the marine sediments of the Gulf of Manfredonia (Italy)

*Raffaele D'Adamo, Daniele Cassin, Lucrezia Cilenti, Adele Fabbrocini, Tommaso Scirocco, Antonietta Specchiulli, Roberto Zonta*

PS27.4 - Best practices, good practices and guidelines: a critical review based on different management options in protected areas of cross-boundary Adriatic-Ionian region

*Luigi Potenza, Fabio Bozzeda, Silvia Giulio, Maurizio Pinna, Alberto Basset*

PS27.5 - Bioremediation of chronically oil-polluted marine sediment using bacteria of hydrocarbons-degrading bacteria

*Santina Santisi, Dellagnezze Martins B., Catania V., Catalfamo M., Bonsignore M., Volta A., Gentile G., De Oliveira M. V., Quatrini P., Castermans B., Yakimov M.M., Cappello S.*

## PS28 - PHYTOPLANKTON TRAITS

PS28.1 - To float or to sink? A preliminary explanation to phytoplankton dilemma according to allometric scaling model and a novel method to study sinking rate

*Durante Giulia, Roselli Leonilde, Stanca Elena, Basset Alberto*

PS28.2 - New data-driven method from 3D confocal microscopy for calculating phytoplankton cell biovolume

*Roselli Leonilde, Stanca Elena, Paparella Francesco, Basset Alberto*

PS28.3 - Cyanobacterial succession, size structure and toxins in the volcanic lake Vico (Latium, Italy) over a five year period

*Emanuela Viaggiu, Emanuele Gandola, Sara Bogialli, Federica Nigro, Di Gregorio, Emanuele Ferretti, Luca Lucentini, Roberta Congestri*

PS28.4 - The determinants of seasonal and vertical trait dynamics in phytoplankton communities, using long-term data from Germany's largest drinking-water reservoir

*Valerie Wentzky, Christoph Jäger, Karsten Rinke*

PS28.5 - Effects of weather extremes on phytoplankton structure and composition in a freshwater reservoir

*Petr Znachor, J. Nedoma, J. Hejzar, J. Sedá & J. Komárková*



## PS29 – LTER

PS29.1 - Field environmental philosophy: integrating environmental ethics and ecological sciences at LTSEr-Chile

*Paula Caballero, Camila Saldías, Verónica Morales, Francisca Massardo, Jaime Jiménez, Tamara Contador, Kelli Moses, Alvaro Nunez, Justin Williams, Juan L. Celis-Diez, Cristian Frene, Mariela Nuñez-Avila, Juan J. Armesto, Ricardo Rozzi*

### PS29.2 - Ecology and ethics in ILTER

*Ricardo Rozzi, F. Stuart Chapin III, J. Baird Callicott, S. T. A. Pickett, Mary E. Power, Juan J. Armesto, Manuel Maass, Miguel Equihua, Terry Parr, Ben Li, Francisca Massardo, Roy H. May Jr*

PS29.3 - An integrative analysis of the visible and invisible effects of Hurricane Jova on the Chamela LTER site in western Mexico

*Juan C. Álvarez-Yépez, Angelina Martínez-Yrízar, Felipe Arreola, Raúl Ahedo, Patricia Balvanera, Julieta Benítez-Malvido, Eloisa Díaz-Francés, Ek del Val, Mayra Gavito, Eugenia González del Castillo Aranda, Victor J. Jaramillo, Manuel Maass, Miguel A. Ortega, Geoffrey Parker, Katherine Renton, Ireri Suazo*

PS29.4 - Integrating scales and LTER methods to better understand the overall dynamics of a mountain protected space: the Ordesa and Monte Perdido National Park

*M.Begoña García, PNOMP-LTER members*

PS29.5 - Monitoring the impacts of global change in Sierra Nevada LTER platform: preliminary results

*Francisco Javier Bonet-García, Regino Jesús Zamora Rodríguez, José Miguel Barea-Azcón, Antonio Jesús Pérez-Luque, Rut Aspizua Cantón.*

PS29.6 - Ecohydrology across the global domain of ILTER

*Kinga Krauze, Tiffany Troxler, Francisco Barbosa*

PS29.7 - Biodiversity monitoring as an opportunity to engage ILTER in climate change mitigation

*Miguel Equihua, Octavio Pérez-Maqueo, Nashieli García-Alaniz, Michael Schmidt, Julián Equihua, Pedro Maeda, Melanie Kolb, Arturo Hernández, Griselda Benítez, Sergio Ibañez, Manuel Maass, Terry Parr*

PS29.8 - Monitoring of essential biodiversity variables in protected areas and environmental change: impact of rural abandonment in LTER montseny (north-east Spain) measured by means of indicators based on bird monitoring data

*Sergi Herrando, Marc Anton, Lluis Brotons, Daniel Guinart*

PS29.9 - A quarter-century monitoring of litterfalls and reproductive investment of trees in three forest sites of Japan LTER (JaLTER)  
*Hoshizaki, K., Noguchi, M., Shibata, M., Saito, S., Sato, T., Masaki, T.*

PS29.10 - ILTER Nitrogen Initiative: Challenge for global comparative studies on nitrogen cycles  
*Hideaki Shibata*

PS29.11 - Dominance controls diversity: Plant community responses to grazing from a worldwide meta-level analysis

*Sally E. Koerner, Deron E. Burkepile, Melinda D. Smith, T. Mike Anderson, Meghan L. Avolio, Stephanie L. Eby, Elisabeth J. Forrestel, Nathan P. Lemoine, Dave I. Thompson, The Grazing Exclosure Consortium*

PS29.12 - 21-year patterns of litterfall in relation to typhoon disturbance and prevailing climate

*Kuo-Chuan Lin, Teng-Chiu Lin*

PS29.13 - Studying species diversity and its linkage to ecosystem functions in the Fushan Experimental Forest, Taiwan – A long-term ecological study via a Forest Dynamics Plot

*Yi-ching Lin, Jyh-Min Chiang, Sheng-Hsin Su, I-Fang Sun*

PS29.14 - Long term monitoring of coral reefs in the Mexican Pacific: achievements and socio-ecological implications in a climate-changing world

*Andrés López Pérez*

PS29.15 - Changes in biodiversity and trade-offs among ecosystem services, stakeholders and components of well-being: the contribution of the ILTER to PECS

*Manuel Maass, Patricia Balvanera, Jacques Baudry, Patrick Bourgeron, Jan Dick, Miguel Equihua, Martin Forsius, Lubos Halada, Kinga Krauze, Masahiro Nakaoka, Daniel E. Orenstein, Terry Parr, Charles L. Redman, Ricardo Rozzi, Margarida Santos-Reis, Angheluta Vădineanu*

PS29.16 - Socio-ecological research at the Engure LTSEr platform, Latvia  
*Viesturs Melecis, Maris Klavins, Zaiga Krisjane, Anda Medene, Maris Laivins, Inara Melece, Gunta Springe, Mara Janaus, Solvita Rusina, Aina Karpa, Kristaps Vilks*

**PS29.17** - Large moorings arrays around South Africa- development in deep ocean mooring systems  
*Tamaryn Morris, Juliet Hermes, Isabelle Ansorge, Mike Roberts, Sabrina Speich, Lisa Beal*

**PS29.18** - A nationwide long-term monitoring survey of forest ecosystems in Japan  
*Niwa S., Suzuki S., Ueta M., Hidaka A., Hiura T.*

**PS29.19** - Long-Term Soil Warming Experiments in Cool-Temperate Forests-Belowground Carbon Dynamics  
*Noh, N.J., Saitoh, T.M., Nakaji, T., Nakamura, M., Hiura, T., Muraoka, H.*

**PS29.20** - Mapping production of biomass by annual plants in Mediterranean evergreen woodlands in the Montado LTSER platform  
*Pedro Pinho, Alice Nunes, Alzira Ramos, Melanie Batista, Lúcio do Rosário, Sara Mimo, Claudia Cordovil, Margarida Santos-Reis, Cristina Branquinho*

**PS29.21** - Broadening the societal relevance of international LTER Network carbon science and data  
*Tiffany Troxler*

**PS29.22** - Effects of altitude, soil warming, and litter accumulation on the decomposition by using tea bag experiments  
*Suzuki, S.N., Ida H., Kobayashi, H., Takahashi, K., Noh, N-J., Muraoka, H., Hirota, M., Seino, T., Suzuki, R.O., Kenta, T., limura Y., Tsunoda, T., Niwa, S., Hiura, T.*

**PS29.23** - International perspectives from long-term research in ecosystem carbon cycling science: implications for global change research  
*Tiffany G. Troxler, Dario A. Fornara, Kate Lajtha, Sheng-Gong Li, Guanghui Lin, Fang Liu, Liudmila Mukhortova, Katarzyna Sawicka, Jianwu Tang, Rodrigo Vargas, Jordan Barr, Joanna M. Clark, M. Crawley, D. Tilman, Estella Vedrova*

**PS29.24** - Fostering ecological data sharing: collaborations in the International Long Term Ecological Research network  
*Kristin L. Vanderbilt,, Chau-Chin Lin, Sheng-Shan Lu, Abd Rahman Kassim, Honglin He, Xuebing Guo, John H. Porter*

**PS29.25** - Linking long-term ecosystem monitoring to forest management for multiple ecosystem services  
*Urša Vilhar, Daniel Žlindra, Lado Kutnar, Primož Simončič*



## SIDE EVENTS

20:00 - 23:00

**WELCOME COCKTAIL** - Exhibition Area



15:00 - 19:00

**EFF MEETING**

17:45 - 19:00

**MEETING OF THE PRESIDENT OF ECOLOGICAL SOCIETIES**

17:00 - 19:00

**SITE BOARD MEETING**





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