

ABSTRACT BOOK

**27TH INTERNATIONAL
CONGRESS FOR
CONSERVATION BIOLOGY**

**4TH EUROPEAN CONGRESS
FOR CONSERVATION
BIOLOGY**



**ICCB
ECCB
2015**

**MISSION
BIODIVERSITY:
CHOOSING
NEW PATHS FOR
CONSERVATION**

**MONTPELLIER,
FRANCE
2-6 AUGUST 2015**



Society for Conservation Biology



**DRAFT DOCUMENT:
FINAL VERSION TO BE
PUBLISHED ONLINE
IN SEPTEMBER 2015**

27TH INTERNATIONAL CONGRESS FOR CONSERVATION BIOLOGY

4TH EUROPEAN CONGRESS FOR CONSERVATION BIOLOGY

The International Congress for Conservation Biology and European Congress for Conservation Biology (ICCB-ECCB) is a forum for addressing conservation challenges and for presenting new research and developments in conservation science and practice. ICCB-ECCB connects our global community of conservation professionals and is the major networking outlet for anyone interested in conservation.

The meeting theme, Mission Biodiversity: Choosing new paths for conservation, is a response to indications that many traditional methods for conserving biodiversity have proven unsuccessful. It emphasizes that rapid and ongoing biophysical and societal changes affect the way we do science and practice conservation today. At ICCB-ECCB we will ask very different questions than what we asked

years ago. Increasingly we work with people from different disciplines such as computer science, economics, and social science, among others. We face different challenges like new pathogens and invasive species, new drivers of habitat loss (e.g. oil palm in West Africa), and the illegal trade of species and their parts on the internet.

To address these challenges and others, we are developing new methods and tools to use with on-the-ground conservation, like drones and new remote-sensing technology for monitoring and conservation enforcement, and citizen science projects for collecting data and engaging the public. The theme for ICCB-ECCB reflects these changes and our need to keep up with and anticipate changes for better conservation science and practice.



ABOUT THE SOCIETY FOR CONSERVATION BIOLOGY

SCB is a global community of conservation professionals with members working in more than 100 countries who are dedicated to advancing the science and practice of conserving Earth's biological diversity. The Society's membership comprises a wide range of people interested in the conservation and study of biological diversity: resource managers, educators, government and private conservation workers, and students.

SCB publishes the flagship peer-reviewed journal of the field, *Conservation Biology*, and the cutting-edge online journal, *Conservation Letters*. The Society provides many benefits to its community, including local, regional, and global networking, an active conservation-policy program, and free online access to publications for members in developing countries. SCB also administers a postdoctoral program, the David H. Smith Conservation Research Fellowship Program, sponsored by the Cedar Tree Foundation.

Jade Lauren CAWTHRAY, Natural History Museum London ; Anne JUNGBLUT, Natural History Museum London ; John C TWEDDLE, Natural History Museum London

The Microverse is a UK-based citizen science project that actively involves school students and community groups in microbial research using cutting edge DNA sequencing technologies. The Natural History Museum in London is collaborating with over 150 schools on this research, engaging over 1000 students aged 16-18 from across the country. By collecting samples of microorganisms from buildings and other man-made structures across the UK and using next generation DNA sequencing techniques, this research will reveal new insights into the microbial communities present and the role they are playing in the urban ecosystem. Students collect samples of microorganisms from a building local to them, submit them to the Natural History Museum for DNA sequencing, analyse the data, write blog posts to share their experiences, and suggest future directions for the research. Samples collected by the students are stored indefinitely within the Museum's Molecular Collections Facility, creating a lasting legacy for the project and an ongoing resource for researchers both at the Museum and internationally. This poster will introduce The Microverse project, share initial research findings, and analyse the challenges, benefits and impacts of involving school students in citizen science projects.

ECOGEOMORPHOLOGICAL ASSESSMENT OF AGRICULTURAL ABANDONMENT IN SEMIARID MEDITERRANEAN AREAS: A BASIS FOR NATURAL RECONSTRUCTION

Francisco Robledano

University of Murcia

Asunción ROMERO-DÍAZ, University of Murcia ; Víctor Manuel ZAPATA, University of Murcia ; Carlos MARTÍNEZ-HERNÁNDEZ, University of Murcia ; Vicente MARTÍNEZ-LÓPEZ, University of Murcia

Agricultural policies and socioeconomic drivers, reinforced by climate change, promote the spontaneous abandonment of large areas critical for soil, water and biodiversity conservation. Natural reconstruction can be a cost-effective management option, alternative to reforestation policies. We present a framework for assessing the potential for ecosystem recovery in semiarid agricultural areas of the Mediterranean, based on the results of SENECA Research Foundation's Project 15233/PI/10, focused at the evaluation of ecogeomorphological responses to land abandonment in Southeastern Spain. To delimit the feasibility of applying passive restoration methods, we have made an integrated assessment of biodiversity and physical conservation indicators, with substrate lithology as key factor controlling physical vulnerability, and colonization dynamics (sources, agents and filters) as main driver of recovery. The

assessment has been applied at different scales covering lithological-climatic gradients and space-for-time substitution scenarios of post-agricultural succession. Compositional, structural and functional indicators were built on field surveys of woody flora, vegetation and animal communities, including multispecies indexes of conservation value and functional contribution to recovery. Physical and biological indicators often followed divergent or contrasting trajectories, particularly in less coherent substrates where soil degradation and erosion processes concur with high biodiversity value. Abandonment per se is not widely applicable but in many instances can naturally improve soil and vegetation conditions. Although not generalizable, the results can help decisions about management measures and the scale and intensity of their application. The assessment of new areas, the search for ecogeographical patterns, and the reformulation of the rewilding paradigm within traditional agricultural landscapes, are the next steps forward.

LIFE+ RIPISILVANATURA: AN ECOLOGICAL ENGINEERING, ADAPTIVE APPROACH TO THE RECOVERY OF SOUTHERN MEDITERRANEAN RIPARIAN HABITATS OF EUROPEAN COMMUNITY IMPORTANCE THROUGH THE CONTROL OF EXOTIC INVASIVE SPECIES

Francisco Robledano

University of Murcia

Josefa VELASCO, University of Murcia ; Daniel BRUNO, University of Murcia ; Víctor Manuel ZAPATA, University of Murcia ; José Francisco CALVO, University of Murcia ; Andrés MILLÁN, University of Murcia

In Southeastern Spain, the control of Exotic Invasive Species (EIS) invading riparian habitats is based mostly on short-lived, intensive eradication campaigns. Project LIFE 13 BIO/ES/001407 RIPISILVANATURA (2014-2019), co-funded by the European Commission, adopts a new approach which combines low-intensity restoration and ecological engineering techniques, taking advantage of the native species' capacity to recover and outcompete EIS. Its main objective is to recover the riparian forest along 57 km of the Segura River, through the protection of key habitats and the control of EIS. The Project Leader is the Basin Authority, Confederación Hidrográfica del Segura (CHS), and partners two municipalities, the Autonomous Government of Murcia Region, a NGO, and the University of Murcia, responsible for preparatory habitat assessments and ecological monitoring. Target formations are priority habitats 92A0 and 92D0 (Directive 92/43 EEC). Drafting restoration projects requires selecting sections with higher expectations of success, on the basis of: a) closeness to natural habitats; b) presence of native remnants, and c) vegetation dynamics capable of reinforcing repeated controls of EIS (mostly Giant

