

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



The Society for Conservation Biology (SCB), a global society of conservation students and professionals, held in August 2015 in Montpellier, France its 27th International Congress for Conservation Biology, jointly hosted with the 4th European Congress for Conservation Biology. SCB celebrated its 30th birthday with its largest conference ever, comprised of 2063 attendees, 782 poster presentations and 943 oral presentations organized in 74 contributed sessions and 73 symposia sessions.

The theme of the conference “Mission Biodiversity: Choosing new paths for conservation” represented a response to the fact that the traditional methods for conserving biodiversity need to adapt and change to match the ever-changing nature and needs of today’s world. It emphasized that the same rapid and ongoing biophysical and societal changes our world is facing also affect

conservation science and practice.

We are asking very different questions than what we asked years ago, and using different methods to get the data we need to answer these questions. Increasingly, we work with people from different disciplines such as political science, computer science, economics, and social science, among others. We investigate different challenges that range from new pathogens and invasive species to new drivers of habitat loss such as oil palm production in West Africa to tangled socio-political issues such as the growing illegal trade of species and their parts on the internet. We are developing new methods and tools to address these challenges with on-the-ground conservation, such as using drones and new remote-sensing technology for monitoring and conservation enforcement or citizen science projects for collecting data and engaging the public. Unsurprisingly, one of the most common words in abstracts presented at ICCB-ECCB abstracts was “change.” The ICCB-ECCB 2015 theme and its scientific content, summarized in this Abstract Book, document these changes and our need to keep up with, and even anticipate them for better conservation science and practice.

ICCB-ECCB 2015 featured several presentations, workshops and training courses that provided solutions to prevent or mitigate anthropogenic threats, and celebrated several exemplary success stories through the mini-plenaries from the Society’s Distinguished Service and Early Career Conservationist awardees. ICCB-ECCB 2015 also featured an open debate starring Peter Kareiva and Clive Spash on Conservation Biology today; and how its fundamental principles and values are changing over time.

We would like to thank all participants, organizers and sponsors of ICCB-ECCB 2015 for their excellent work at the conference, and we look forward to many more conservation success stories in the coming years.

—Piero Visconti, Marit Wilkerson,
Edward Game and Raphael Mathevet



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For any queries on regards to this book of abstracts please contact Nathan Spillman nspillman@conbio.org



Society for Conservation Biology

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.

Society

Axel MOEHRENSCHLAGER, Centre for Conservation & Research, Calgary Zoological Society ; Michael HOFFMANN, IUCN Species Survival Commission

Humans have been moving species around the planet for millennia. Reintroductions, as a species conservation tool, have been constantly increasing in frequency within the last few decades and the science around translocations is constantly improving. As such, species reintroductions are now a ubiquitous tool within the discipline of conservation. The global use of reintroductions is reflected not only in terms of the scientific literature but also in terms of the number of applied conservation translocation programs. As this species-specific, intensive management technique is implemented in more and more places around the world, the taxonomic diversity benefiting is also ever-increasing. However, conservationists repeatedly state that reintroductions often fail, citing papers from over a decade ago. We challenge this view as being outdated, and pose the question how successful are reintroductions as a conservation strategy? Intriguingly, recent studies are revealing positive outcomes from reintroductions both on a local and global scale. We suggest that reintroductions are frequently successful and have made a real impact for species recovery and often for the restoration of ecological function. Given the improving science and impact of reintroductions, we attempt to delineate the potential role that conservation translocations can play in addressing new or accelerating threats to biodiversity.

ID163 THE IMPORTANCE OF FOREST AND TREES FOR ECOSYSTEM-BASED ADAPTATION IN RURAL LANDSCAPES

Bruno Locatelli
CIRAD-CIFOR

Ecosystems provide important services that can help people adapt to climate variability and change. Scientific literature provides evidence that EBA with forests and trees can reduce social vulnerability to climate hazards; however, uncertainties and knowledge gaps remain. Pilot projects under implementation also provide information on EBA and can serve as learning sites. Based on different sources of information from scientific literature and experiences on the ground, we discuss the potential of forests and trees for EBA in several cases: forests and trees providing goods to local communities facing climatic threats; trees in agricultural fields regulating water, soil, and microclimate for more resilient production; forested watersheds regulating water and protecting soils for reduced climate impacts; forests protecting coastal areas from climate-related threats; and forests regulating rainfall at the regional or continental level. We discuss uncertainties, knowledge gaps

and controversies regarding EBA. We show that uncertainties are important for adaptation based on the regulating services of forests and trees for protecting watersheds and coastal areas and regulating regional rainfall. The multiple benefits of EBA for biodiversity conservation and climate change are also well recognized but trade-offs exist between ecosystem services or between their beneficiaries. Better understanding is needed of the efficiency, costs, and benefits, and trade-offs of EBA with forests and trees.

THE IMPORTANCE OF BIODIVERSITY FOR MULTIPLE ECOSYSTEM FUNCTIONS IN A HUMAN-MODIFIED TROPICAL LANDSCAPE

Madelon Lohbeck

Wageningen University
Lourens POORTER, Wageningen University ; Miguel MARTINEZ-RAMOS, Centro de Investigaciones en Ecosistemas ; Frans BONGERS, Wageningen University

Biodiversity loss is expected to have large negative consequences for ecosystem functioning. Biodiversity is thought to be especially important for the multifunctionality of ecosystems, as different species contribute to different functions, but support for this idea comes mainly from experimental studies. We evaluated the importance of biodiversity for multiple ecosystem functions in a human-modified tropical forest landscape in Chiapas, Mexico. We quantified five key ecosystem functions (standing above-ground biomass, biomass productivity, litter production, wood decomposition and litter decomposition) at the landscape level, and evaluated to what extent individual species contribute to these functions. The species that contributed most to the different ecosystem functions were largely the same small set of dominant species, indicating a limited role of biodiversity for ecosystem multifunctionality. The use of simulations enabled teasing apart the relative importance of species richness, species dominance and species functional traits, and demonstrated that only when minimizing dominance do different species (with different functional traits) contribute to different ecosystem functions. The present study, like most studies on biodiversity-ecosystem functioning, focuses on a narrow range of (biogeochemical) functions. Future studies should address the consequences of biodiversity loss on ecosystem multifunctionality in natural ecosystems, including a wide range of ecosystem functions.

NATURETRADE: CREATING A MARKETPLACE FOR ECOSYSTEM SERVICES

Peter Long

University of Oxford
David BENZ, University of Oxford ; Gillian PETROKOFKY, University of Oxford ; Sandra NOGUE, University of Oxford ;

