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

ICCB ECCB 2015

ABSTRACT BOOK

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.

TRADE IN WILD ANIMALS (MOLLUSCAN, REPTILIAN AND AVIAN SPECIES) FOR TRADITIONAL AFRICAN MEDICINE IN OGUN STATE, NIGERIA

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A steady rise in the patronage for Traditional African Medicine (TAM) has caused a corresponding increase in the demand for the ingredients used in the preparation of the trado-medicines. These ingredients are the various wild animals and plants parts, cropped from the wild. The attendant rise in demand for ingredients calls for a need to document the extent of utilisation of these natural resources as a measure of the impact of such trade on biodiversity conservation. This paper examined diversity of molluscan, reptilian and avian species traded for use in TAM; the quantity of each species traded over a period of time, and, seasonal fluctuations in abundance and utilisation of these species. A multi-stage stratified random sampling technique was employed. An open-ended questionnaire was administered on vendors in selected market stalls for six consecutive markets days in each of dry and rainy seasons. The study identified twenty-three species, 8 were listed in CITES and Nigerian Decree 11(1985). A total of 3196 (molluscan), 2527 (reptilian), 2894 (avian) carcasses were traded over an average period of twenty days. The mean number of carcasses traded per dealer per month in the two seasons were: Molluscs (24.0 ± 1.6); Reptiles (19.0 ± 1.9) and Aves (21.7 ± 2.3). Trade in, and utilisation of wild animal species in TAM had no consideration for conservation status, hence it involved species under various degree of conservation threats. There seems to be no implementation of regulation of trade in wild animal species, including those purportedly protected by Decree 11 (1985). A twin approach of increase in yield and decrease in demand is required to stem the negative impact of trade and utilisation on biodiversity. Massive conservation education and extension services for the entire populace, capacity building and involvement of indigenous communities in conservation projects are also urgently required.

WOOD DENSITY FOR FOREST CONSERVATION: TOWARDS IMPROVEMENT OF BIOMASS AND CARBON STOCKS IN TROPICAL REGIONS

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The assessment of forest biomass has important consequences for climate-related policies, including conservation and activities related to deforestation and forest degradation. Tree and forest biomass are most efficiently assessed by a combination of remote-sensing, ground-based measurements and allometric models to predict tree and forest characteristics such as tree volume and biomass. The accuracy of these allometric models and therefore of biomass estimates can be improved greatly if wood density is used as an input variable. It is the most commonly used species functional trait in multispecies biomass models, which are frequently used in tropical ecosystems. However, wood density is difficult to measure accurately and thus is not included in large-scale forest inventories. This issue can be bypassed by using species average values, but often wood density values are only available at coarse taxonomic and/or spatial scales. Applying regional multi-species averages reintroduces to the models the potential bias originally removed by the use of wood density values. Therefore more wood density data is needed to cover the diversity of species and environments. This paper presents the work carried out to complement current initiatives aiming to collect, harmonize and share existing wood density data stored in national research institutes across the tropics. The database compiles raw data and calculated averages, with 70 information fields including GPS coordinates, measurement methods and sample size, when available, for a wide range of taxonomic and environmental values. Where precision in both taxonomic and environmental scales remains difficult to meet, the trade-off between the two can be better understood as the database includes both very accurate data and coarse averages. This database will improve forest biomass estimates, towards increasing the potential of climate change mitigation initiatives in the forestry sector.

HOW PERVASIVE IS BIOTIC HOMOGENIZATION IN HUMAN-MODIFIED TROPICAL FORESTS?

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