

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

consumption of wildlife. Effective monitoring would incur a 66% reduction in the biomass of wildlife consumed. Increased enforcement would therefore be beneficial to biodiversity conservation but could limit local people's food supply. On average, the value of wildlife provisioning represented 57% of annual household cash income in local communities from the Makira Natural Park and Masoala National Park. In past work, we have demonstrated a nearly 30% increase in the incidence of anemia given loss of access to wildlife resources. In our current work, we will be investigating the value of wildlife to micronutrient status (vitamin A, vitamin B12, iron, zinc and fatty acid profiles). Ongoing interventions in our landscape include sustainable chicken husbandry promotion and mobile health clinics to simultaneously address the challenges of food security, lack of health care infrastructure and trends in environmental degradation from agricultural extensification and wildlife harvest.

THE CHALLENGE OF ADDRESSING WILDLIFE AND HUMAN DEMANDS: INCORPORATING MAMMALS CONSERVATION AND BIOFUELS DEVELOPMENT IN LAND USE PLANNING.

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The increased demand for the conversion of natural habitats to agricultural areas is a major threat to biodiversity and part of this demand is due to the necessity of energy generation by biofuels. Therefore, it is challenging to address wildlife conservation in a climate changed world demanding for food and energy. It is especially challenging to deal with mammals that require large territories. This study considered Species Distribution Models (SDM) techniques associated with decision-support tools to address land use planning in the most human modified landscape in Brazil (São Paulo State, Southeast, Brazil). Three endangered large mammals (i.e. Puma concolor, *Leopardus pardalis* and *Chrysocyon brachyurus*) occurrence records (2001-2012) and environmental variables (bioclimatic, topographic and landscape related) were modeled using Maximum Entropy algorithm (Maxent 3.3.3.k) and SDMtoolbox (ArcGIS 10.1). The decision-support tool Zonation has been successfully applied in a multi-species spatial prioritization approach to identify priority areas for conservation in the study area. Zonation will be also applied by March 2015 to evaluate conservation options under two realistic biofuel scenarios in the central region of São Paulo State (Tietê-Jacaré watershed): 1. current land use scenario and 2. next future land use scenario (GEOMOD model applied projecting sugarcane expansion by 2019). The results will explicitly show the overlap of areas proposed for biofuels development with areas of high conservation priority. It is important to identify land use planning opportunities

and conflicts in the study area. Also, it might serve as a model to guide similar process for others species and other environmental impacts world-wide. This study makes an important contribution to land use planning for conservation, dealing with threats and their likely impacts on biodiversity through explicit incorporation of uncertainty into decision-making process.

HABITAT CONSERVATION PRIORITY: A FLORISTIC APPROACH APPLIED TO MEDITERRANEAN WETLANDS

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Finding strategies to produce priority lists for conservation purposes is a very important issues, particularly in biodiversity "hot-spots" such as the Mediterranean basin, where biodiversity loss is a critical threat. A relevant recognition of plant communities importance for conservation purposes was established with their inclusion into the "Habitats Directive" (HD; 92/43 EEC), that relates habitat typologies to plant community syntaxonomical units. Thus, the use of plant communities as a proxy for habitats, ecosystems or ecological communities can provide a solid base to perform conservation priority lists. However, habitat definitions in HD lead to several inaccuracies in local habitat characterizations because of its central-northern European focus. Several wetland plant communities (and their corresponding habitats), rare in the Mediterranean basin, are not included in the HD. This study aims to propose some criteria and a procedure to assess the conservation importance of habitats. It deals with plant community types at the alliance level as promising units for setting conservation priorities. The main criteria used are distribution/abundance of vascular plant species of conservation interest and their greater or lesser fidelity to a plant community, considered as a key driver to set alliance value. Multivariate methods was applied and a quantitatively synthetic floristic index was set up. We tested this procedure in an important wetland area of central Italy, where a large amount of botanical data were available. Our investigations highlighted: i) the higher conservation values of some alliances not listed in the HD, bringing to light various gaps in current conservation laws affecting Mediterranean wetlands; ii) that habitats widely distributed in other biogeographical areas may have a great conservation importance, underestimated in the Mediterranean region; iii) the necessity to consider regional singularities when setting conservation priorities.



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