



METHODOLOGY TO INDICATE THE MAINS SITES OF CONSERVATION AT RIO CLARO-SP REGION

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INTRODUÇÃO

The global biodiversity has been seriously affected by deforestation. Habitat loss and fragmentation are the main threats to biodiversity, in special within Atlantic Rainforest (Ribeiro *et al.*, 2009), Amazonia (Laurance *et al.*, 2004) and Cerrado (Klink and Machado, 2005). These regions are hotspots of biodiversity since it has high degradation degree, and high level of endemism and specie’s richness (Myers *et al.*, 2000). Site priority for conservation, connectivity maintenance and habitat restoration are needed in order to archive high biodiversity levels, but there are no method that deal with these three goals at one.

OBJETIVOS

The aim of this Project was to develop a novel method to indicate areas to be protected, to maintain forest connectivity and to select sites for conservation at local and regional scales.

MATERIAL E MÉTODOS

The study was carried out in a landscape at Rio Claro-SP’s region, Corumbatai basin, totalizing 160.000 ha. Natural vegetation comprises a transition between Atlantic Rainforest and Cerrado. A cover map was generated at 1:10.000 scale using high resolution images available at Google Earth. Cover map included forest, pasture, sugarcane, buildings, mining, forestry and water, but for this study we reclassified the map on two classes: forest and matrix. Although we proposed three focus for biodiversity maintenance, on this study we show only the Conservation Hotspots step. For Conservation Hotspots we defined as those sites with >60% of vegetation at 75 m scale around each pixel. This value was adopted as it indicates patch with high percolation degree and a great connective structure. It makes possible that species, which do not move in areas without forest coverage, have a great habitat area. After identify every location with more than 60% of habitat, we calculate the amount of joint pixels (i.e. a patch) that agree with this condition to allow us select only those larger areas.

RESULTADOS

For Rio Claro landscape a threshold of 130 ha was selected and cutoff for conservation hotspots. By analyzing the region, we estimated 35.000 ha of forest (c.a. 21 %). We also identified 30 conservation hotspot areas, which accounts for 9.675 ha, or 27% of total forest, and 6% for the entire landscape.

DISCUSSÃO

The spatial distribution of conservation hotspots are randomly positioned within study area, although in NW region concentrate more areas. Ongoing analyses include the two other complementary approaches, connectivity maintenance and restoration hotspots.

CONCLUSÃO

With this study we hope to contribute to better address conservation and restoration plans, allowing high levels of biodiversity conservation, in a better balance between landscape-scale managed area and budget spent.

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Agradecimento