

NATIVE TREE SPECIES DIVERSITY GROWING UNDER *Eucalyptus* spp. PLANTATION IN SÃO PAULO STATE, BRAZIL

Theme: Biodiversity Conservation Indicators

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Science and practice of ecologic restoration in the state of São Paulo, Brazil, are currently under discussion. A group of researchers believes that the restoration of native forests should follow the standards developed by the São Paulo state resolution, which guides towards ecological restoration based on the scientific and empirical knowledge available so far. Another group of researchers believes that these standards are based on assumptions which are not supported by scientific experiment, and that the stringency of the available standards stifles the scientists and restorers initiative and creativity, thus building an extra barrier that hinders the discovery of innovative solutions, and slows the expansion of areas to be restored. This study agrees with the latter's opinion, especially in terms of the lack of evidence to prove that a high diversity of species at planting is the most adequate form of guaranteeing the restorations success. This study aimed at evaluating the diversity of shrub and tree species growing under eucalyptus plantation in the state of São Paulo, Brazil, by means of a review of 17 scientific papers. The number of trees identified comprised 70 families, 226 genera and 515 native species, of which 445 are tree species and 70, are shrub species. Among all listed species, only 20% are primary. Among the species found in the environment, 35% occur only in Atlantic Forest and 14% occur only in Cerrado savanna, and 51% species occur in both biomes. The predominant seed dispersal strategy is zoocory, which was characteristic for 68% of species. About 105 of the tree species and 45 shrub species found in *Eucalyptus* underwoods were not detected in two other studies that reviewed hundreds of papers about tree species occurring in riparian forests and Cerrado savanna vegetation in great part of the Brazilian territory. Growing under *Eucalyptus* canopies were founded 21 species listed in the "Official List of Endangered Flora Species of the São Paulo State". Despite the lack of papers about the subject, and the small size of the studied fragments, the native tree and shrub species diversity founded is relevant, and qualifies this kind of forest fragment as useful for the emergence, development and maintenance of native tree species. (This work is supported by EMBRAPA - Project number 03.09.01.015.00.00) Keywords: floristic composition, native tree species, *Eucalyptus* spp.