



Tropentag, October 5-7, 2011, Bonn

“Development on the margin”

Floristic Composition of Riparian Vegetation of a Stream in the Northeast of Pará State-Brazil

GISELE SARAIVA, SEBASTIÃO RIBEIRO XAVIER JÚNIOR, REGINA C. V. MARTINS-DA-SILVA,
ADEMIR ROBERTO RUSCHEL, FERNANDA ILKIU-BORGES

Brazilian Agricultural Research Corporation, Brazil

Abstract

Riparian forests are essential in the preserving water quality, maintaining stream integrity, providing wildlife habitat and the soil around it. However, these forests are being threatened due to development with no or little planning and action is needed to recover the natural vegetation. As one example, these threats are evident in the northeastern region of Pará State (Brazil) and here, urgent intervention is required to control or reverse the damage. Given that it is necessary to know the plant species expected in typical riparian vegetation in such areas, we undertook a floristic study of an undisturbed area as a basis for comparison and recovery of vegetation of disturbed areas. Our study was on the floristic composition of riparian vegetation of the Golpe stream which located near the city of Aurora do Pará in Pará State. Over 490 m of the stream were demarcated on the left and right banks using 16 plots of 20×100 m with intervals of 10 m. From these, five plots were selected in each bank to collect data.

Details of height, DBH and description of the stem were collected for shrubs and trees with $DBH > 5$ cm. Botanical samples were collected and subsequently identified. Fertile specimens were deposited at the IAN Herbarium. In the study area, we gathered 2,426 specimens in 56 families, 153 genera and 275 species. The most representative families by number of specimens were Leguminosae (554), Lecythidaceae (284), Burseraceae (205), Sapotaceae (180), Annonaceae (128), Malvaceae (120), Chrysobalanaceae (116) and Euphorbiaceae (105). The families with the highest diversity of taxa were Leguminosae (50 species), Sapotaceae (24), Lauraceae (19), Chrysobalanaceae (14) and Burseraceae (10), followed by Annonaceae, Euphorbiaceae and Myrtaceae with 9 species each. The estimated forest basal area was approximately $27.80 \text{ m}^2 \text{ ha}^{-1}$ and the density was $1,215 \text{ ind. ha}^{-1}$. Around 20% of the community are composed of two species (*Macrolobium bifolium* (Aubl.) Pers and *Eschweilera coriacea* (DC.) S.A. Mori) and 60% of the species have up to two trees ha^{-1} .

Keywords: Amazonian, conservation, inventory