

Descriptive Study of Tropical Tree Species in Commercial Interest Biosphere Reserve Luki in the Democratic Republic of Congo (DRC)

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Abstract : The rainforest plays a crucial role in regulating the climate balance. The biodiversity of tropical rainforests is undeniable, but many aspects remain poorly known, which directly influences its management. Despite the efforts of sustainable forest management, human pressure in terms of exploitation and smuggling of timber forms a problem compared to exploited species whose status is considered "vulnerable" on the IUCN red list compiled by. Commercial species in Class III of the Democratic Republic of Congo are the least known in the market operating, and their biology is unknown or non-existent. Identification of wood in terms of descriptions and anatomical measurements of the wood is in great demand for various stakeholders such as scientists, customs, IUCN, etc. The objective of this study is the qualitative and quantitative description of the anatomical characteristics of commercial species in Class III of DR Congo. The site of the Luki Biosphere Reserve was chosen because of its high tree species richness. This study focuses on the wood anatomy of 14 commercial species of Class III of DR Congo. Thirty-four wooden discs were collected for these species. The following parameters were measured in the field: Diameter at breast height (DBH), total height and geographic coordinates. Microtomy, identification of vessel parameters (diameter, density and grouping) and photograph of the microscopic sections and determining age were performed in this study. The results obtained are detailed anatomical descriptions of species in Class III of the Democratic Republic of Congo.

Keywords : sustainable management of forest, rainforest, commercial species of class iii, vessel diameter, vessel density, grouping vessel

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