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REVALIDATION OF *CEDRELA BRACHYSTACHYA* (MELIACEAE), AN ECOLOGICAL SPECIALIZED TREELET FROM THE CENTRAL BRAZILIAN RIPARIAN ECOSYSTEMS

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Cedrela P. Browne (Meliaceae) is an arboreal genus with 18 described species and occurs in the Neotropical seasonal forests. *Cedrela* grows from over well-drained to humid soils; currently, none of the described congeners are associated with riparian ecosystems. In this study we investigated the molecular and morphological relationships of an unidentified species of *Cedrela* from central Brazil to other congeners. We uncover nuclear and chloroplast sequence and microsatellite data from specimens of several populations, and carried out an array of molecular analyses. We employed Bayesian phylogenetic analyses and the Bayesian clustering approach of STRUCTURE with microsatellites, and morphological characterizations. The morphometric assessment showed that *Cedrela* sp. had been identified as *Cedrela brachystachya* (C.DC.) C.DC., a species described in 1907 and later synonymized as *Cedrela odorata* L. In the Bayesian phylogeny with sequence data from the ITS region, *Cedrela brachystachya* grouped together with *C. saltensis*, *C. nebulosa*, and *C. odorata* with PP = 100%. Furthermore, specimens of *C. brachystachya* formed a tip clade with PP = 99%. The Bayesian structure inferred three genetic groups (best K = 3). Two groups correspond to *Cedrela fissilis*, previously identified as the east and west lineages, which occur at alongside the Cerrado in Central Brazil. Those two groups, the east and west lineages, showed proportion of assignment over 90% and 91% respectively. The third group corresponds to *Cedrela brachystachya* and exhibited proportion of assignment over 99%. The gene pool of *Cedrela fissilis* is almost absent from *C. brachystachya*. We suggest the taxonomic revalidation of *Cedrela brachystachya* (C.DC.) C.DC. given that this species differs morphologically from others *Cedrela*; molecular data suggested that the speciation event that gave rise to *C. brachystachya* was complete. The species is endemic of central Brazil. Probably this endemism may result from the climatic stability of riparian ecosystems throughout the Quaternary climate fluctuations.

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