Lorena Ramos da Mata, J Biotechnol Biomater 2018, Volume 8
DOI: 10.4172/2155-952X-C6-104

Development and characterization of microsatellite markers in *Attalea speciosa* and their transferability to six other *Attalea* species

Lorena Ramos da Mata
Embrapa Genetic Resources and Biotechnology, Brazil

Babassu (*Attalea speciosa* Mart. ex Spreng) is a native palm tree with wide distribution in Brazil, where it is one of the main extractive products. The nut extracted from this palm is used in the oil manufacture with domestic and industrial utility. The sustainable use of babassu is important for the preservation of this forest resource and also for the economy of endemic regions of the genus. Microsatellite primers were developed for the main species of Attalea. Total genomic DNA library enriched for TC repeats was constructed for *A. speciosa* following a standard protocol, and 84 markers were developed. We evaluated the transferability of the 84 microsatellite markers for six other babassu species: *A. barreirensis, A. eichleri, A. funifera, A. maripa, A. phalerata* and *A. vitrivir.* The transferability was superior to 63% in all species studied. The markers were characterized in populations of seven *Attalea* species with 20 to 44 individuals each. The total number of alleles over all loci, observed and expected heterozygosity was similar for the seven *Attalea* species, ranging from 6.2 to 9.4, 0.64 to 0.74, and 0.48 to 0.56, respectively. These values are comparable to the values obtained for other palms and showed that the seven *Attalea* species has high genetic diversity. Cluster analysis showed groupings of plants according to their species and also showed that some of the plants are hybrids (*A. speciosa x A. eichleri*). The set of markers developed constitutes a powerful tool for genetic analysis in the genus Attalea.

Biography

Lorena Ramos da Mata has completed her Graduation in Pharmaceutical Sciences at the University of Brasilia in 2008 and MSc in Botany at the same university in 2016. She is currently an Analyst at the Brazilian Agricultural Research Company-EMBRAPA CENARGEN.

lorena.mata@embrapa.br

Notes: