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Genetic diversity of *Metrodorea nigra* (Rutaceae) from a small forest remnant in Brazil assessed with microsatellite markers

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ABSTRACT. *Metrodorea nigra* (Rutaceae) is an endemic Brazilian tree of great ecological importance, frequently found in the submontane regions of ombrophilous dense and semideciduous forests. This tree is useful for reforesting degraded areas and the wood can be employed in construction. We developed 12 microsatellite markers from a genomic library enriched for GA/CA repeats, for this species. Polymorphisms were assessed in 40 trees of a highly fragmented population found in Cravinhos, State of São Paulo, in southeastern Brazil. Among the 12 loci, 8 were polymorphic and only one had fixed alleles in this population. The number of alleles per locus and expected heterozygosity ranged from 2 to 11 and from 0.190 to 0.889, respectively. These results revealed mod-

erate levels of genetic variation in *M. nigra* population when compared to other tropical species. Additionally, transferability of the 12 primers was tested in seven other Brazilian Rutaceae tree species (endemics: *M. stipularis*, *Galipea jasminiflora*, *Esenbeckia leiocarpa* and non-endemics: *E. febrifuga*, *E. grandiflora*, *Balfourodendron riedelianum*, *Zanthoxylum riedelianum*). Transferability ranged among species, but at least 8 loci (~67%) amplified in *M. stipularis*, demonstrating a high potential for transferring microsatellite markers between species of the same genus in the Rutaceae family.

Key words: Tropical forest species; Carrapateira; Population genetics; SSR markers; Rutaceae

