



## Genetic diversity of *Annona crassiflora* (Annonaceae) in northern Minas Gerais State

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**ABSTRACT.** Genetic diversity analyses of tropical tree species are relevant to landscape management, plant genetic resource inventory, and biological conservation of threatened species. *Annona crassiflora* is an endangered fruit tree native to the Cerrado biome that is threatened by reduction of natural populations and fruit extraction. We examined the intra- and interpopulational genetic diversity of this species in the northern region of Minas Gerais State. Seventy-two individuals from four natural populations were genotyped using RAPD markers. We found moderate genetic diversity among populations, with Shannon's  $I$  index varying between 0.31 and 0.44, and Nei's genetic diversity ( $H_E$ ) for the population set equal to 0.31. AMOVA indicated a greater genetic

variation within (77.38%) rather than among populations (22.62%), tending towards isolation by distance (Mantel's  $r = 0.914$ ;  $P = 0.089$ ). Nei's genetic identity estimates among populations revealed a hierarchical pattern of genetic similarity of form [(CA1, CA2), MC], [(GM)], corroborating the high genetic differentiation between spatially isolated populations.

**Key words:** *Annona crassiflora*; Northern of Minas Gerais; Genetic diversity