DISTRIBUTION AND INVASIVE POTENTIAL OF Callithrix penicillata (É. GEOFFROY, 1812) (CALLITRICHIDAE), IN THE BRAZILIAN TERRITORY

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Tema/Meio de apresentação: Pôster

Invasive species are the second main cause of biodiversity loss, which may result in economic and environmental damage. Callithrix penicillata is naturally found in the Cerrado (Brazilian savanna) and is reported as an invasive species in many of the country’s states. The introduction of the species occurred through the trafficking of animals, the marmosets marketed illegally as pets were eventually released in different parts of the country. Its introduced populations have become a conservational problem due to its high occupation potential, native fauna predation, competition with native congeners and hybridization. In this study we used Potential Distribution Modeling (MDP) in order to identify areas with a higher probability of C. penicillata occurrence through the Maxent software (Maximum Entropy). The found values were AUC=0.966 for the training data and AUC=0.919 for the testing data, with a curve value close to 1. We observed through the jackknife test that temperature seasonality was the variable most related to distribution (AUC=0.86), which agrees with other studies that show climatic variables influencing on primate distribution. The Atlantic Forest in the Southeast and South regions of Brazil was indicated as susceptible to invasion by C. penicillata. The Atlantic Forest has a high level of endemism, and the Southeast and South regions, due to high demographic concentrations, contribute to making the marmoset biological invasion a concerning factor.

The authors thank Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, for providing scholarships.