TITLE: ECOLOGICAL DIVERSITY OF Fusarium ssp. ROOT ENDOFITICS OF THE BABASSU PALM *Attalea speciosa* (Mart)

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ABSTRACT:

The babassu palm *Attalea speciosa* (Mart.), Arecaceae, is a dominant and ruderal component in the north-central landscapes of Maranhão, however, there are no reports of microorganisms endophytically associated with this palm and what their respective functions. Moreover, there are few reports of how native palm species serve as hosts to potentially phytopathogenic organisms, such as fungi of the Fusarium genus. Therefore, the objective of this work was to evaluate the diversity of species of *Fusarium* ssp. Endophytic roots of babassu palm. Samples were obtained from an experimental area in Pirapemas county, in cocais region of the Maranhão state, with two densities of palm (25 e 100% palms ha^{-1}), in the rainy season that is considered the period of greater microbial activity. 288 root fragments were submitted to surface disinfestation conditions and after placed in petri dishes with PDA and sabouraud medium. All the isolates obtained were identified at the species level through optical microscopy after microcultures, and preserved these in the Fungi Cultures Collection of the Phytopathology Laboratory of Maranhão State University. 199 *Fusarium* ssp. isolates were obtained, distributed at 106 at 25% density and 93 at 100%. These were identified as belonging to six species of the genus Fusarium: *F. oxysporum* Schltdl., *F. proliferatum* Berk. & Ravenel, *F. semitectum* Berk. & Ravenel, *F. denticulatum* Nirenberg & O'Donnell, *F. chlamydosporum* Wollenw. & Reinking and *F. sporotrichioides* Sherb. Ecologically the presence of *Fusarium* ssp species in plants with no disease symptoms indicates that they may be avirulent breeds or latent pathogens in harmony with the host and the environment. Therefore, according to our results the babassu palm is serving as a natural and unique reservoir of species of the Fusarium genus, in the edaphoclimatic conditions of the cocais region in north-central of Maranhão state.

Keywords: Plant community ecology, Biodiversity, Maranhão cocais region, Phytopathogen, Endophytic fungi.

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