***Neopestalotiopsis*speciesassociatedwithleaf spots on*Arecaceae* in Brazil**(Espécies de *Neopestalotiopsis* associadas a manchas foliares em Arecaceae no Brasil)

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Arecaceae is a large botanical family with economic, medicinal and ornamental importance. It comprises approximately 2,600 species within 181 genera, with plants distributed mainly in tropical regions. Several fungi can cause leaf spot disease on Arecaceae. The aim of this study was to identify the fungi associated with leaf spots on some species belonging to Arecaceae in Brazil, based on molecular analyses. Symptomatic leaves of palm trees, *i.e*. African oil palm (*Elaeisguineensis*), babassu palm (*Attaleaspeciosa*), coconut palm (*Cocos nucifera*) and tucumã palm (*Astrocaryumaculeatum*), were collected in Altamira, Baião, Belém, Bonito, Moju and Santa Bárbara do Pará located in the state of Pará, Brazil. In addition, coconut fruits showing stem-end rot symptoms were collected in Linhares, Espírito Santo state, Brazil. Direct isolations were performed, then 38 single-spore isolates were obtained. Fungal genomic DNA was extracted using the Wizard Genomic DNA Purification Kit (Promega Corporation, WI). The rRNA-ITS, β-tubulin (BT), and translation elongation factor 1-α (TEF1-α) loci were amplified by PCR using primer sets ITS1/ITS4, T1/Bt2b, and 983F/2218R, respectively. PCR products were purified and sequenced by ACTGeneAnálisesmoleculares LTDA, Brazil. Consensus sequences were compared against the GenBank database using their megaBLAST tool. Sequences were aligned by MUSCLE® algorithm, which is available in MEGA v. 7 software. The HKY+G model of evolution was selected for ITS and TEF1-α, and HKY+I+G for BT by jModelTest 2.1.7. Bayesian inferences were performed with each region/gene separately, then with the combined dataset in the CIPRES Science Gateway V. 3.3 using MrBayes v. 3.2.6. The phylogenetic analyses revealed five previously described *Neopestalotiopsis* species, *i.e*. *N. cubana*(on African oil palm and tucumã palm), *N. formicidarum*(on African oil palm, babassu palm and tucumã palm), *N. magna* (on African oil palm), *N. rosicola* (on coconut palm) and *N. surinamensis*(on African oil palm and babassu palm). All known species were identified for the first time on these hosts in Brazil. Some isolates of this study did not cluster with any known species, probably representing new species, and it will be proposed in accordance with the International Code of Nomenclature for algae, fungi, and plants. This study contributes to the knowledge about the diversity of *Neopestalotiopsis*species, especially those associated with plant diseases.

Palavras-chave: Phylogeny; *Sporocadaceae*; Taxonomy
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