

TITLE: MICROFUNGI ASSOCIATED WITH PHYTOTELMATA SUBSTRATES AND LEAF BLADE OF BROMELIADS (BROMELIACEAE) FROM AN ATLANTIC FOREST FRAGMENT IN THE SOUTHERNMOST OF BAHIA

AUTHORS: GOMES¹, C. V.; SILVA¹, T. N.; FORTUNA¹, J. L.

INSTITUTION: ¹Universidade do Estado da Bahia (UNEB), Campus X, Teixeira de Freitas-BA. (Laboratório de Microbiologia. Av. Kaikan, s/n – Universitário. Teixeira de Freitas-BA, Brazil. CEP: 45.992-294) E-mail: jfortuna@uneb.br

ABSTRACT:

There is a great diversity of microfungi in our ecosystem, among them, those who live in association with plants. Some species of bromeliads possess as their phenotypic characteristic, the presence of small containers known as phytotelma, where leaves, twigs and other substrates can be deposited. Thus, microfungi species may be associated with decomposing substrates in phytotelmata. In addition, there are microfungi that live in association with the leaves of Bromeliads, called endophytic fungi when they live inside the leaf, and epiphytic when found on the surface of the leaf blades. This research aimed at collecting, cultivating, and identifying species of microfungi associated with phytotelmata substrates and bromeliad leaves found in a forest fragment of Atlantic Forest located in the southernmost of Bahia, in the municipality of Teixeira de Freitas-BA. The collections occurred in January and March 2019. Samples of substrates (branches, leaves, petioles, arthropods) were collected in the phytotelma and bromeliad leaves (apical and basal) of the genera *Aechmea* and *Vriesia*. The samples were taken to the Fungi Biology Laboratory of the Universidade do Estado da Bahia (UNEB), Campus X, where the microfungi samples were processed, analyzed, and identified. Microscopic identification was performed according to the taxonomy of the groups based on specialized literature. The species *Dictyochaeta obesispora* and the genus *Thozetella*, all found in branches, were identified and associated with the bromeliad phytotelmata substrates. The following microfungi were identified from the leaves of bromeliads: *Curvularia brachyspora* (epiphytic only); *Penicillium simplicissimum* and *Fusarium oxysporum* (both endophytic and epiphytic). This research contributed to encompass the knowledge of the diversity of endophytic and epiphytic microfungi and in substrates found in bromeliads, besides being one of the first studies carried out in the southernmost region of Bahia.

Keywords: Microfungi; Bromeliads; Substrate; Endophytic; Atlantic Forest.

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