

NOTA CIENTÍFICA

***Lasiodiplodia theobromae*: A NEW HOST AND A REVISION OF PLANT HOSTS REPORTED IN BRAZIL**

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This paper is part of a palm microfungi survey in Atlantic Rainforest areas of Northeast Brazil. *Bactris hirta* (tucum - mirim) (Arecaceae) is a new host for the fungus *Lasiodiplodia theobromae*. In Brazil, *L. theobromae* is reported on two Arecaceae species: *Bactris gasipaes* and *Cocos nucifera*.

Key words: taxonomy, palm fungi, biodiversity, Brazilian mycota

***Lasiodiplodia theobromae*: um novo hospedeiro e uma revisão das plantas hospedeiras reportadas no Brasil.** Este artigo é parte de uma pesquisa de microfungos de palmeiras em áreas de Mata Atlântica do Nordeste do Brasil. *Bactris hirta* (tucum - mirim) (Arecaceae) é um novo hospedeiro do fungo *Lasiodiplodia theobromae*. No Brasil, *L. theobromae* está registrado para duas espécies de Arecaceae: *Bactris gasipaes* e *Cocos nucifera*.

Palavras-chave: taxonomia, fungo de palmeira, biodiversidade, micota Brasileira

Introduction

Lasiodiplodia theobromae (Pat.) Griff. & Maubl. occurs throughout the tropics, on plants and other substrates as a saprobe and as a common wound parasite (Hawksworth *et al.*, 1995). It has been reported from about 500 host plants. This genus is characterised by immersed eustromatic conidiomata, with holoblastic conidiogenous cells producing initially thin-walled hyaline conidia, which, mature slowly becoming thick-walled then finally, dark brown with a medium septum and longitudinal striations (Sutton, 1980).

Materials and Methods

Shrunk fruits of *Bactris hirta* Mart. were collected in the municipality of Uruçuca, Bahia State, Brazil, and examined for fungi. The fungal specimens identified were prepared as herbarium material and deposited in the CEPEC Herbarium (Mycological Collection) in Itabuna, Bahia, Brazil. Observations under the stereomicroscope were followed by the study of squash preparations and vertical, free hand sections of the conidiomata. Morphological features were measured and photographed using a Carl Zeiss microscope. The samples were stained with lacto-glycerol cotton blue and acid lactofucsina.

Results and Discussion

Taxonomy

***Lasiodiplodia theobromae* (Pat.) Griff. & Maubl.** Bull. Soc. Mycol. Fr. 25: 57 (1909) Basionym: *Botryodiplodia theobromae* Pat. 1892.

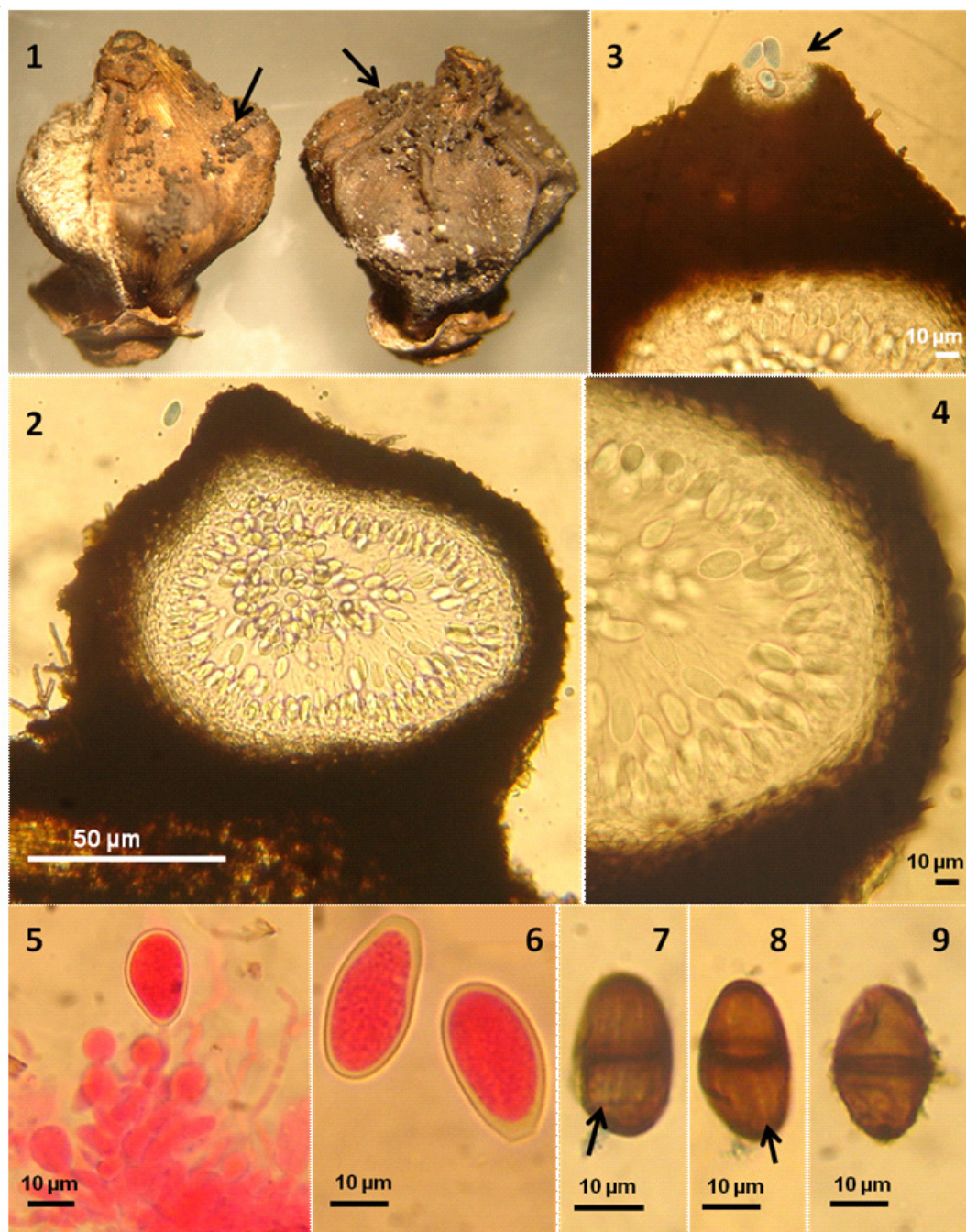
= *Lasiodiplodia tubericola* Ell. & Everh. 1896.

CONIDIOMATA PYCNIDIAL 0.3 – 0.5 mm diam., dark, aggregated, ostiolate, on the host surface; in vertical section 112.5 - 122.5 x 100 - 102.5 µm, unilocular, wall formed of dark brown thick-walled textura angularis. OSTIOLE central, single, papillate. CONIDIOPHORES reduced to conidiogenous cells, 2.5 – 3 µm width, septate, hyaline, smooth. CONIDIA 23 – 35 x 12.5 – 15 µm, at first hyaline and aseptate,

becoming dark brown and 1-septate with irregular longitudinal striations.

Material examined: BRAZIL. BAHIA: Uruçuca, EMARC, on shrunk fruits of *Bactris hirta* Mart., 15/III/2010, Nadja Vitoria (CEPEC 2220).

Hosts known in Brazil: *Abelmoschus esculentus* Moench (Malvaceae), *Acacia cincinnata* F. Muell. (Fabaceae), *Acacia crassicaarpa* A. Cunn. ex Benth. (Fabaceae), *Acacia holosericea* A. Cunn. ex. G. Don (Fabaceae), *Acacia mangium* Willd. (Fabaceae), *Aleurites fordii* Hemsl. (Euphorbiaceae), *Anacardium occidentale* L. (Anacardiaceae), *Anacardium* sp. L. (Anacardiaceae), *Annona muricata* L. (Annonaceae), *Annona squamosa* L. (Annonaceae), *Arachis hypogaea* L. (Fabaceae), *Artocarpus integrifolia* L. f. (Moraceae), *Astronium urundeuva* Engl. (Anacardiaceae), *Bactris gasipaes* Kunth (Arecaceae), *Bactris hirta* (this paper), *Bixa orellana* L. (Bixaceae), *Carica papaya* L. (Caricaceae), *Cecropia pachystachya* Trécul (Urticaceae), *Citrullus lanatus* (Thunb.) Matsumura & Nakai (Cucurbitaceae), *Citrus australis* Planch. (Rutaceae), *Citrus reticulata* Blanco (Rutaceae), *Citrus sinensis* Osbeck (Rutaceae), *Citrus* sp. L. (Rutaceae), *Cocos nucifera* L. (Arecaceae), *Colocasia esculenta* Schott (Araceae), *Cucurbita* sp. L. (Cucurbitaceae), *Cydistax antisiphilitica* Mart. (Bignoniaceae), *Dioscorea* sp. Plum. ex L. (Dioscoreaceae), *Eucalyptus pellita* F. Muell. (Myrtaceae), *Eucalyptus* sp. L'Hér. (Myrtaceae), *Eucalyptus urophylla* S.T. Blake (Myrtaceae), *Euphorbia gymnoclada* Boiss. (Euphorbiaceae), *Ficus* sp. L. (Moraceae), *Glycine max* Merr. (Fabaceae), *Gossypium hirsutum* L. (Malvaceae), *Grevillea robusta* A. Cunn. (Proteaceae), *Gustavia* sp. L. (Myrtaceae), *Helianthus annuus* L. (Asteraceae), *Hevea brasiliensis* (Willd. ex A. Juss.) Müll. Arg. (Euphorbiaceae), *Hevea* sp. Aubl. (Euphorbiaceae), *Ipomoea batatas* (L.) Lam. (Convolvulaceae), *Jatropha curcas* L. (Euphorbiaceae), *Jatropha podagrica* Hook. (Euphorbiaceae), *Lupinus angustifolius* DC. (Fabaceae), *Malpighia emarginata* DC. (Malpighiaceae), *Mangifera indica* L. (Anacardiaceae), *Manihot esculenta* Crantz (Euphorbiaceae), *Manihot glaziovii* Müll. Arg.



Figs. 1-9. *Lasiodiplodia theobromae* (CEPEC 2220): 1. Appearance of conidiomata pycnidial on dried fruits (arrows). 2. Section conidiomata. 3. Ostiole. 4. Wall of pycnidium. 5-6. Conidia immature, hyaline and aseptate. 7-9. Conidia dark brown, 1-septate with irregular longitudinal striations (arrows).

(Euphorbiaceae), *Manihot palmata* Müll. Arg. (Euphorbiaceae), *Manihot* sp. Mill. (Euphorbiaceae), *Morus* sp. L. (Moraceae), *Musa paradisiaca* L. (Musaceae), *Passiflora edulis* Sims (Passifloraceae), *Passiflora edulis* f. *flavicarpa* Deg. (Passifloraceae),

Passiflora sp. L. (Passifloraceae), *Paullinia cupana* Kunth (Sapindaceae), *Phaseolus vulgaris* L. (Fabaceae), *Pinus maximinoi* H.E. Moore (Pinaceae), *Pinus oocarpa* Schiede ex Schltdl. (Pinaceae), *Pinus* sp. L. (Pinaceae), *Pinus caribaea* Morelet var.

hondurensis W.H.G. Barrett & Golfari (Pinaceae), *Prunus amygdalus* Stokes (Rosaceae), *Psidium guajava* L. (Myrtaceae), *Ravenala* sp. Adans. (Musaceae), *Ricinus communis* L. (Euphorbiaceae), *Rosa* sp. L. (Rosaceae), *Ruprechtia laxiflora* Meisn. (Ranunculaceae), *Sesamum indicum* L. (Pedaliaceae), *Spondias dulcis* G. Forst. (Anacardiaceae), *Spondias purpurea* L. (Anacardiaceae), *Spondias tuberosa* Arruda (Anacardiaceae), *Stylosanthes guianensis* (Aubl.) Sw. (Fabaceae), *Theobroma cacao* L. (Sterculiaceae), *Theobroma grandiflorum* K. Schum. (Sterculiaceae), *Triticum aestivum* L. (Poaceae), *Urena lobata* L. (Malvaceae), *Vigna unguiculata* (L.) Walp. (Fabaceae), *Vitis vinifera* L. (Vitaceae).

Comments: For a complete description of *L. theobromae* see Sutton (1980). *Bactris hirta* is widely distributed throughout the Amazon in Brazil and in Atlantic Rainforest between Pernambuco and Espírito Santo (Lorenzi *et al.*, 2004). The fungus *Lasiodiplodia theobromae* was known occurs only in two Arecaceae species: *Bactris gasipaes* in Bahia state and *Cocos nucifera* in Rio de Janeiro, Pará, Bahia, Sergipe, Roraima, Ceará, Paraíba, Espírito Santo and Pernambuco states (Mendes e Urben, 2012). This paper records a new host for fungus *Lasiodiplodia theobromae* in Brazil.

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