



## New eriophyoid mites (Acari: Prostigmata: Eriophyoidea) from banana and heliconia in Northeastern Brazil—two new genera and three new species

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### Abstract

A new genus and new species of the mite family Eriophyidae (Phyllocoptinae), namely *Cothrix erugata* **n. sp. et n. gen.**, is described from *Heliconia stricta* Huber (Heliconiaceae). In addition, one new genus and two new species of Diptilomiopidae, namely *Rhyncadicrus asperulus* **n. sp. et n. gen.** from banana, *Musa acuminata* Colla x *Musa balbisiana* Colla (genomic group AAB) (Musaceae) and *Catarhinus granatus* **n. sp.** from *Heliconia bihai* L., are described and illustrated. The mites were collected in the State of Pernambuco, Northeastern Brazil. All were vagrants on the lower leaf surfaces of their host plants and no visible damage symptoms were observed.

**Key words:** Acari, Eriophyidae, Diptilomiopidae, Phyllocoptinae, taxonomy, *Heliconia*, *Musa*, neotropical

### Introduction

Heliconias are neotropical plants originating from the Northwest region of South America. The genus *Heliconia* was previously included in the plant family Musaceae but now constitutes the only genus of Heliconiaceae. It comprises about 150 different species, with about 40 occurring in Brazil (Berry & Kress 1991; Marques *et al.* 2004). These plants can be found from sea level to an altitude of 2000 metres, mainly in humid areas (Criley & Broschat 1992). Because of their bract colours, heliconias are often used for ornamental purposes. These tropical plants are becoming increasingly commercialised internationally and are predominantly cultivated in Latin America and Europe (Marques *et al.* 2004). No eriophyoid mites that are associated with heliconias have been reported previously.

Banana is the common name for herbaceous plants of the genus *Musa* (Musaceae). These plants are perennial, parthenocarpic, propagated vegetatively and can grow up to 15 metres in height. Bananas, originally from Asia and more specifically India, were disseminated to tropical regions worldwide, including the Pacific Islands, Africa and the Americas (Valle & Camargos 2003). In Brazil, this fruit was introduced during the XVI century (Lorenzi *et al.* 2006). Bananas are widely consumed and appreciated because they are rich in calories but very low in fat. Additionally, this fruit has been found to contain high amounts of health-benefiting anti-oxidants, minerals and vitamins (Marisa 2006).

Three eriophyoid species are known so far from cultivated banana. All of them have been described from the eastern part of the Southern Hemisphere, namely, *Phyllocoptura musae* Keifer 1955 from Australia and *Diptilomiopus musae* (Chandrapatya 1998) from Thailand (Chandrapatya & Boczek 1998). Both species were collected from *Musa acuminata* Colla x *Musa balbisiana* Colla (type hosts originally listed as *Musa paradisiaca* L.); and *Phyllocoptura acuminatae* Boczek & Chandrapatya (2000) from *M. acuminata* in Thailand.

New taxa of the mite family Eriophyidae are here described as follows: A new genus and species of the sub-