



## Phytoseiid mites (Acari: Phytoseiidae) of the Dominican Republic, with a re-definition of the genus *Typhloseiopsis* De Leon

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### Abstract

The phytoseiid mites of the Dominican Republic are virtually unknown. In a survey conducted in areas of natural vegetation of that country, 23 species were collected, two of which, *Phytoseius dominicensis* Ferragut & Moraes **sp. nov.** and *Typhloseiopsis adventitius* Ferragut & Moraes **sp. nov.**, are new to science. We report the species found in that survey, describe the two new species, and provide complementary morphological information about other species. To accommodate the new *Typhloseiopsis* De Leon species, a redefinition of *Typhloseiopsis* is proposed. A key for the separation of the species in this genus is provided.

**Key words:** taxonomy, predatory mites, *Phytoseius*, *Typhloseiopsis*, Dominican Republic

### Introduction

The Dominican Republic is located in the Caribbean Basin just under the Tropic of Cancer. In its territory of 48,700 km<sup>2</sup>, the country shows a great diversity of ecosystems and microclimates that harbor a rich fauna and flora with significant numbers of endemic species (Liogier, 1976; Bolay, 1997; Pérez-Gelabert, 2008). In spite of this fact, plant mites have not received significant attention from taxonomists and, in particular, phytoseiid mites are still virtually unknown. Up to date only one species, *Proprioseiulus sandersi* (Chant) intercepted at San Juan, Puerto Rico, has been reported from the country (Moraes *et al.*, 2004). The objective of the present paper is to report on phytoseiid mites collected on natural vegetation in a survey conducted in the Dominican Republic between late September and early October 2008.

### Material and methods

The survey was conducted at three sites representing diverse climatic, topographical and botanical characteristics. The sites were (1) Peninsula de Barahona and Sierra de Bahoruco in the southwest, near the Haitian border. The Peninsula de Barahona is located near the coast and represents an arid/semi-arid area with annual rainfall of 250–500 mm and a real arid season. The vegetation is characterized by hyper-xerophytic forests composed mainly of cactus bush formations. The Sierra de Bahoruco is the largest forest reserve in the Dominican Republic, with a moderately humid climate and botanically characterized by the native *Pinus occidentalis* Swartz above 1,000 m above sea level, and mixed forests formed by broad-leaved trees and pines below this level. (2) Region of the Cordillera Central, Jarabacoa-Manabao. This is the main high mountain range situated at the centre of the country, with an annual precipitation of 1,000–1,500 mm and subtropical humid forests. Mountain forests in this region are