Zootaxa 1550: 1–47 (2007)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Phytoseiid mites of the subtribe Amblyseiina (Acari: Phytoseiidae: Amblyseiini) from sub-Saharan Africa

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Accepted by H. Klompen: 02 Jun. 2007; published: 15 Aug. 2007

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Abstract

This is the fifth publication in a series to determine the phytoseiid mites of sub-Saharan Africa. Thirty-one phytoseiid species of the subtribe Amblyseiina are reported in this paper. They refer to all species of this subtribe known to occur in sub-Saharan Africa. Ten of these species are described for the first time, 15 species are redescribed and 6 are not evaluated in this study. Most of those species were collected in cassava habitat in tropical Africa and in other habitats in South Africa. A key is included to help in the separation of these species.

Key words: Acari, Mesostigmata, Phytoseiidae, Amblyseiini, predator, cassava, taxonomy, sub-Saharan Africa

Introduction

Phytoseiidae mites are commonly used for the biological control of pest mites in several countries. The inventory of the faunistic composition in a given region is one of the first steps in an effort to establish a biological control program against a pest species.

In 1984, the International Institute of Tropical Agriculture (IITA) initiated a campaign to control *Mononychellus tanajoa* (Bondar) biologically (Yaninek & Herren 1988). *Mononychelles tanajoa* is a cassava (*Manihot esculenta* Crantz) pest that was accidentally introduced from the Neotropics to Africa, apparently in early 1970's (Nyiira 1972). Surveys were conducted in cassava habitats of several cassava-growing countries in sub-Saharan Africa from 1986 to 2002 by IITA personnel to identify the composition of the mite fauna before and after the introduction of exotic phytoseiids from the Neotropics. During those surveys, many phytoseiid species were collected, some of which are new to science. This paper is the fifth in a series dealing with the identification of sub-Saharan African phytoseiid mites elaborated within the scope of the IITA program for the biological control of *M. tanajoa*. The first paper dealt with species of the genus *Euseius* (Moraes et al. 2001b), the second with the species in the subtribes Typhlodromalina and Euseiina (Moraes et al. 2006), the third with the species of the genus *Neoseiulus* (Zannou et al. 2006) and the fourth with the species of the subtribes Arrenoseiina and Proprioseiopsina (tribe Amblyseinii) and the tribe Typhlodromipsini (Moraes et al. 2007). The objective of the present paper is to report the phytoseiid mites of the subtribe Amblyseiina Chant & McMurtry (tribe Amblyseiini Wainstein) known from sub-Saharan Africa with redescriptions of known species and descriptions of new species based on specimens found in the surveys previously reported, plus specimens collected by South African researchers. A key is presented to help in the separation of all the species of this subtribe known from sub-Saharan Africa.

Setal nomenclature is that of Rowell et al. (1978) and Chant & Yoshida-Shaul (1991) for dorsal and ventral surfaces of the idiosoma, respectively. Idiosomal setal patterns used here are those of Chant and Yoshida-Shaul (1992). All measurements are given in micrometers; each measurement corresponds to the average for the number of individuals indicated for each sex of each species followed (in parentheses) by the respective ranges (if measurement is variable); for some of the redescribed species, measurements of type specimens are provided (in brackets). Dorsal shield width was always taken at the widest level of the proscutum. Macrosetae