



Species of the subtribes Arrenoseiina and Proprioseiopsina (Tribe Amblyseiini) and the tribe Typhlodromipsini (Acari: Phytoseiidae) from sub-Saharan Africa

GILBERTO J. DE MORAES¹, IGNACE D. ZANNOU¹, EDDIE A. UECKERMANN²,
ANIBAL R. OLIVEIRA¹, RACHID HANNA³ & JOHN S. YANINEK⁴

¹Depto. Entomologia, Fitopatologia e Zoologia Agrícola, ESALQ-Universidade de São Paulo-13418-900 Piracicaba-SP, Brazil.
E-mail: gjmoraes@carpa.ciagri.usp.br

²Plant Protection Research Institute, Private Bag X134, Queenwood, Pretoria; 0121 South Africa

³Biological Control Centre for Africa, International Institute of Tropical Agriculture, 08 B.P. 0932, Cotonou, Benin, West Africa

⁴Dept. Entomology, Smith Hall Room 100, 901 W State Street, Purdue University, West Lafayette, IN 47907-2089; USA

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Abstract

This is the fourth publication of a series to determine the phytoseiid mites of sub-Saharan Africa. Twenty-six phytoseiid species of the subtribes Arrenoseiina Chant & McMurtry (5 species) and Proprioseiopsina Chant & McMurtry (9 species), and tribe Typhlodromipsini Chant & McMurtry (12 species), are reported in this paper. They refer to all species of these taxa known to occur in sub-Saharan Africa. Eight of these species are described for the first time, 14 species are redescribed and 4 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. Keys are included to help in the separation of the species in each tribe or subtribe.

Key words: Biological control, predator, cassava, taxonomy

Introduction

Cassava is one of the most important food crops grown in sub-Saharan Africa. The Neotropical mite pest *Mononychellus tanajoa* (Bondar), the cassava green mite, was first reported in East Africa in the early 1970's, from where it quickly spread to most sub-Saharan African countries where cassava is widely cultivated (Yaninek 1988). In the early 1980's, the International Institute of Tropical Agriculture (IITA) initiated a program to control *M. tanajoa* biologically (Yaninek & Herren 1988). To evaluate the composition of native phytoseiids, IITA personnel conducted surveys in cassava habitats in several sub-Saharan African cassava-growing countries before and after the introduction of exotic phytoseiids from the Neotropics for the control of that pest. This paper is the fourth of a series dealing with the identification of phytoseiid mites found in those surveys. The first paper dealt with species of the genus *Euseius* (Moraes *et al.* 2001b), the second with the species in subtribes Typhlodromalina and Euseiina (Moraes *et al.* 2006), and the third with the species of the genus *Neoseiulus* (Zannou *et al.* 2006).

The objective of the present paper is to report the phytoseiids of the subtribes Arrenoseiina Chant & McMurtry and Proprioseiopsina Chant & McMurtry, belonging to the Amblyseiini, and of the tribe Typhlodromipsini Chant & McMurtry. Redescriptions of known species and descriptions of new species are based mostly on specimens found in the cassava surveys previously reported, with the addition of specimens collected by South African researchers. Keys are given to help separate the species reported.

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 are those of Chant & 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 those cases, if measurements of specimens collected in this study are also provided, then the measurements of the types are shown in brackets. Dorsal shield width was always taken at the widest level of the