

Eriophyid mites (Acari: Eriophyidae) from Turkey*

EVSEL DENİZHAN

Department of Plant Protection, Faculty of Agriculture, Yüzüncü Yıl University, Van, Turkey;
E-mail: evsel@yyu.edu.tr

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Abstract

A survey was carried out in 2006–2009 of the Eriophyidae species present on cultivated plants and on plants of natural vegetation of the regions of Van Lake Basin and Ankara, Turkey. A total of 18 species were identified, in the following genera: *Aceria*—six species; *Aculus*—two species; *Eriophyes*—two species; *Abacarus*, *Anthocoptes*, *Aculops*, *Calepitrimerus*, *Colomerus*, *Phyllocoptes*, *Schevtchenkella* and *Tetra*—one species each.

Key words: Acari, Eriophyidae, taxonomy, Turkey.

Introduction

Eriophyid mites are obligate plant feeders with strong host specificity (Amrine, 1996). They are so small, usually 100–200 μ m long by about 50 μ m wide, as to be often invisible to the naked eye. They are morphologically well adapted to living on plants, including the roots, with unique morphological, biological and ethological peculiarities. Many species are considered pests and are included on quarantine lists; some transmit viruses and other pathogens. Worldwide, the known number of species is small in relation to the expected existing number of species. Given the relatively small effort dedicated to their knowledge, the known geographical distribution of these mites reflects the working base of the researchers involved in their study.

There are about 4,000 known species of eriophyoid mites worldwide and about 1,000 in Europe (De Lillo & Amrine, 1998 unpub. data). It is estimated that the total number of species may amount to more than 50,000 (Amrine, 1996). Except for Antarctica, eriophyoid mites can be found anywhere plants thrive (Lindquist *et al.*, 1996).

The geographical position and the botanical history of Turkey make it particularly likely to harbour a large number of species. Some of these could have scientific or economic interest, either as pests or as control agents of weeds. Despite this potential, the Turkish eriophyoid fauna has been poorly studied (De Lillo & Sobhian, 1994; Özman & Çobanoğlu, 2001; Denizhan *et al.*, 2006, 2008) and is scarcely known. Therefore, a comprehensive survey of the eriophyid mites of Turkey is warranted. The objective of this study was to contribute to that survey, in two Turkish regions, which are of great importance because of their botanical diversity and their importance as agricultural areas.

Materials and Methods

A survey was conducted between 2005 and 2009 on cultivated plants and on plants of the natural vegetation of the regions of Ankara (39°58'49 N; 32°50'54 E, alt. 925 m) and Van Lake Basin (39°03'23 N; 43°45'38 E, alt. 1,712 m), with particular interest on ornamentals and weeds. Leaves