Systematic & Applied Acarology 19(4): 409–430 (2014) ISSN 1362-1971 (print);
http://dx.doi.org/10.11158/saa.19.4.5 ISSN 2056-6069 (online)

Article http://zoobank.org/urn:lsid:zoobank.org:pub:C3A50ED8-3BD8-464B-A87E-E2228F710D58

New species and records of eriophyoid mites from Saudi Arabia (Acari: Eriophyoidea)

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Abstract

Three new species and seven new records of eriophyoid mite species from Saudi Arabia are described and illustrated. They are *Mackiella phoenicis* Keifer, 1939 rec. nov. on *Phoenix dactylifera* L. (Arecaceae), *Cecidophyopsis rosmarinusis* sp. nov. on *Rosmarinus officinalis* L. (Lamiaceae), *Aceria cynodoniensis* Sayed, 1946 rec. nov. on *Sesuvium portulacastrum* (L.) L. (Aizoaceae), *Aceria daturae* (Soliman & Abou-Awad, 1977) rec. nov. on *Datura stramonium* L. (Solanaceae), *Aceria fica* (Cotté, 1920) rec. nov. on *Ficus carica* L. (Moraceae), *Aceria nilotica* (Abou-Awad & Nasr, 1983) on *Pennisetum alopecuroides* (L.) Spreng. (Poaceae), *Epitrimerus saudiarabis* sp. nov. on *Phoenix dactylifera* L. (Arecaceae), *Abacarus cynodonsis* Abou-Awad & Nasr, 1983 on *Sesuvium portulacastrum* (L.) L. (Aizoaceae), *Aculus portulacus* sp. nov. on *Portulaca oleracea* L. (Portulacaceae) and *Aculus zaheri* (Abou-Awad, 1979) on *Solanum nigrum* L. (Solanaceae). All new species are vagrants on the host plants. A checklist of eriophyoid mites from Saudi Arabia is provided.

Key words: Eriophyoidea, taxonomy, new species, new records, Saudi Arabia

Introduction

Mite fauna of Saudi Arabia has been poorly understood. The field work on essential taxonomic, biological and ecological studies of agricultural mites has been limited (Al-Atawi & Halawa 2011). Review of literature of eriophyoid mites of Saudi Arabia recorded a total of 15 species from the country (Martin 1972; Soliman & Al-Yousef 1980; Al-Atawi 2011 and Al-Atawi & Halawa 2011). These species belong to two families, four subfamilies, six tribes and nine genera.

The present study was conducted with the aim to study the eriophyoid mites associated with some fruit trees, woody trees and weeds in Riyadh and Qassim Provinces in Saudi Arabia and summarize the reported species of eriophyoid mites in Saudi Arabia.

Material and Methods

Sampling of plant foliages, branches, flowers and buds were carried out randomly from July 2010 to June 2011 by Ashraf El-Halawany from Saudi Arabia. Specimens of the eriophyoid mites were collected from plants by direct examination under a stereomicroscope. Mites on weeds were sampled using specialized hand-held aspirators (BioQuip®, CA, USA), after modifying the collecting chamber by adding a small piece of light cloth. Collected mites were mounted on slides in Keifer's medium. Specimens were examined with the aid of a Zeiss A2 (Germany) research microscope equipped with phase contrast (A-plan phase objectives: ×10/0.25, ×20/0.45; EC plan-NEOFLUAR

